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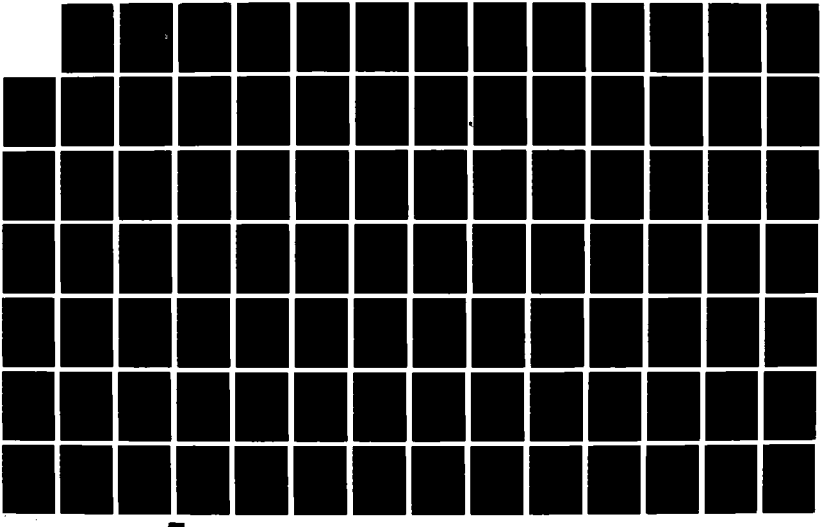

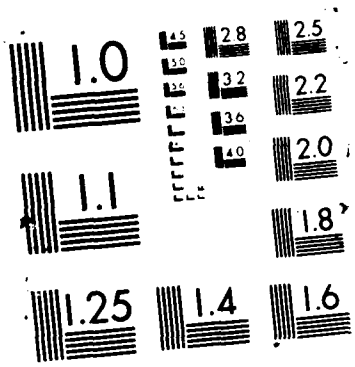
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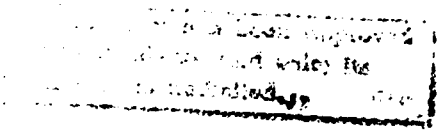

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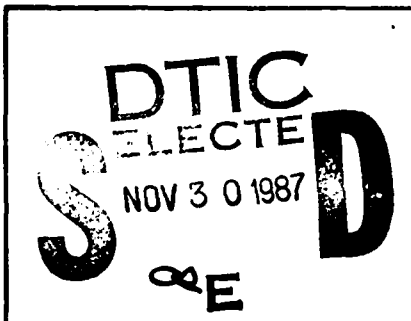

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NATIONAL AIR TRANSPORTATION INSPECTION PROGRAM

FEDERAL AVIATION ADMINISTRATION

March 4, 1984 - June 5, 1984

Report For The Secretary

C.2

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

LIST OF TABLES

EXECUTIVE SUMMARY

In response to a directive from the Secretary of Transportation, the FAA implemented the National Air Transportation Inspection Program (NATI) on March 4, 1984. NATI was a special 90-day program of increased surveillance of air carriers operating under FAR Part 121 and commuter air carriers operating under FAR Part 135. Its primary objectives were to: 1) assess industry compliance with FAA safety regulations and policies; 2) identify and correct deficiencies in air carrier compliance with FAA regulations and standards; 3) develop a baseline of data for the long-term accumulation of inspection and surveillance information; and 4) acquire information with which to assess the overall effectiveness of normal FAA surveillance and inspection procedures in the current air transportation environment.

NATI was developed and organized by FAA Headquarters and coordinated through Regional Flight Standards Divisions and District Offices. The 90-day inspection was divided into two phases. Phase I was three weeks of intensified inspections of all air carriers covering 12 types of standard inspections. The results of Phase I inspections were primarily used to determine the general compliance level of the air carrier industry and to select air carrier and aviation organizations for Phase II inspections. Phase II consisted of two categories of inspections: 1) in-depth inspections of air carriers whose operations or degree of compliance warranted further investigation; and 2)

special purpose team inspections that surveyed certain problem areas that appeared to be generic in nature. Altogether, 13,467 Phase I inspections were conducted. During Phase II, 43 air carriers were inspected in-depth and 89 different air carriers and aviation support organizations were inspected by special purpose teams.

Immediate findings and accomplishments of NATI showed that: a very small percentage of the items investigated were found to have deficiencies; all minor deficiencies were easily resolved; compliance, in general, appeared to improve during the NATI; the size of effort to accomplish NATI resulted in deferment of other FAA services not immediately essential to safety; and the categories of information collected will improve the Air Operator Data System and provide additional data to enhance training profiles and inspector experience evaluation.

Conclusions to be drawn from the NATI are:

1) The vast majority of all carriers, including new entrants and established companies are in compliance with applicable FAA requirements. In those cases where there was an indication of a compliance problem, one or more of the following characteristics were usually present: rapid expansion into areas of different operational environment, a relatively large amount of contract maintenance and/or training, inadequate internal auditing procedures, and management skills and philosophy incompatible with sound practices. These characteristics of an air carrier's operations, if present, should trigger increased FAA surveillance and

increased efforts on the part of the air carrier to monitor compliance.

2) The rapidly growing and changing air carrier industry has dramatically increased the demands upon FAA inspector resources. For a while, during a period of rapid air carrier expansion, emphasis shifted from inspection to certification, which may have contributed to compliance problems on the part of certain air carriers. The FAA has responded to this situation with increases in the inspection force and new training programs to improve the efficiency of the surveillance and inspection functions.

3) In recent years, certain practices among air carriers have changed, such as the degree to which air carriers contract out services. Present regulations do not appear to adequately address these changed practices. While the FAA continually reviews the adequacy of specific regulations, there is a need to perform a comprehensive analysis of the overall air carrier regulatory structure in the context of the changed airline operating environment. While this task will be large, actions of a more immediate nature are being taken to address these issues.

4) NATI confirmed that the FAA needs more complete and timely information on air carrier operations and on inspection and surveillance management in order to more efficiently meet the changing requirements presented by

the airline industry. This need is being defined and addressed.

5) In some instances, non-standard application of FAA policy occurs within the FAA and among air carriers because of FAA decentralization and rapid changes in air carrier operations. The FAA is dedicated, through programs such as the Air Transportation Analysis System (ATAS) and the Safety Analysis and Functional Evaluation (SAFE) Program, to continue to improve communication between Headquarters and field offices to increase standardization.

6) Air carriers do not always quickly recognize the need for changes in the type and degree of experience required of their own personnel who are responsible for assuring compliance with safety standards. The FAA is addressing this issue in industry meetings and through training programs for inspectors.

INTRODUCTION

In the past six years there have been advances in technology and changes in the operating environment of the air transportation industry. New entrants into the industry, the opening of new routes, competitive pricing, and an increase in the number of people using air transportation have been accommodated. Nevertheless, there is always concern that rapid changes may cause a deterioration of the high safety standards for which the United States air transportation system is noted. Maintaining such standards, particularly in a time of change, requires continuous oversight, inspection, and communication. The Secretary of Transportation, in an effort to assure the continuation of adequate safety standards in the transportation industry, appointed a task force within the Department to conduct an intense safety review of all forms of transportation. As part of this review, the Secretary's office has been working with the Federal Aviation Administration on a comprehensive exploration of long-term aviation safety needs and goals.

In addition, on February 13, 1984, the Secretary took steps to assure the continuing effectiveness of the FAA safety inspection and surveillance programs by directing the FAA to:

1) Increase the number and frequency of air carrier inspections;

2) Conduct a series of short-notice inspections into any and all safety-related areas associated with air carrier operations;

3) Conduct inspections of all segments of the industry including established and new entrant air carriers, commuters and large air carriers, flight and ground operations, and maintenance procedures and records; and

4) Correct specific problems identified during the course of these inspections.

In response to the Secretary's directive, on March 4, 1984, the FAA implemented the National Air Transportation Inspection (NATI) program. (The DOT/FAA implementing order can be found in Appendix A.) NATI was a special 90-day program of increased surveillance of air carriers operating under the rules contained in FAR Part 121 and FAR Part 135. A total of 327 air carriers and more than 25 air transportation support organizations were inspected. NATI was completed on June 5, 1984. (A schedule of major NATI activities is shown in Appendix B.)

The specific objectives of the NATI program were: 1) to assess industry compliance with FAA safety regulations and policies; 2) to identify problems or potential problems and correct them; 3) to develop a baseline of data for a long-term accumulation of information in inspection and surveillance activities and findings; and 4) to develop information which can be used to assess the overall effectiveness of normal FAA surveillance and inspection procedures in the present air transportation environment.

NATI was a highly successful program enabling greater safety to be achieved in the airline industry and permitting the FAA to examine critically its procedures with a goal of improving the process and quality of oversight.

The following report describes the 90-day inspection operation and discusses the results and general findings of the inspections. More detailed information about the organization, approach and inspections is included in appendices. Specific findings in the case of individual airlines have been discussed with those airlines. Where deficiencies were detected, they were addressed.

HOW NATI WAS CONDUCTED

As its title indicates, NATI was a national FAA effort, developed and organized by Headquarters, and coordinated through Regional Flight Standards Offices and District Offices that have Flight Standards responsibilities for Part 121 air carriers and/or Part 135 commuter air carriers. (See Appendix C.)

District Offices were responsible for conducting or, in some instances, supporting inspections. The District Office filed the inspection reports with the appropriate Regional Office which in turn accumulated the data. The District Office also supervised the correction of any deficiencies uncovered by the inspections.

NATI was limited to air carriers conducting scheduled and non-scheduled (charter) operations under 14 CFR Part 121 and air carriers conducting scheduled commuter operations under 14 CFR Part 135. The public uses mainly these carriers and these carriers have been the most affected by changes in the air transportation operating environment over the recent past. Inspections were conducted on established air carriers as well as on recent entrants, on large carriers as well as small, on ground and flight operations as well as on maintenance procedures and records.

Given the practical considerations of resources and time, an in-depth inspection of all air carriers was not feasible. Instead, a plan was developed to do specific types of inspections on all air carriers. The plan divided the inspection into two phases. Phase I was three weeks of intensified

inspections of all air carriers. Regional and District Offices were directed to conduct a certain quota of inspections based on several factors. The 12 types of operations and airworthiness inspections conducted were standard inspections of the end products of methods and systems established to assure compliance and good/safe operations practices. (For a complete description of the approach taken for NATI inspections, see Appendix D.) Phase I inspection reports were used to measure general compliance of air carriers with safety regulations and to uncover situations that warranted an in-depth inspection.

Phase II inspections were conducted in two categories. The first category was the in-depth inspections conducted on air carriers where either the number or types of deficiencies warranted an inspection of the methods and the systems that the air carrier was employing. For example, Phase II inspections reviewed company policies, procedures, and programs. The inspections included reviewing all interrelated areas within the organizational structure and ultimately identifying both the source of the deficiency and factors contributing to the deficiency. The inspection team then met with management to conduct a briefing and prepared a report of observations, conclusions, and recommendations. In some cases, the in-depth inspection involved the air carrier's entire system; in other cases, the inspection involved only specific areas directly related to the deficiency. It should be noted that, in instances where the Phase I inspection uncovered apparently severe deficiencies, a Phase II in-depth inspection was initiated as soon as possible, even though Phase I was not yet completed.

For most deficiencies disclosed during Phase I and Phase II, corrective measures were immediately implemented under supervision of the District Offices.

The second category of Phase II inspections was special purpose team surveys. These teams did not inspect individual air carriers per se, but investigated practices among air carriers that were problematic, such as contract training of crew members or contract station facility service, etc. (A sample of a special purpose team interim report can be found in Appendix E.)

In all, 13,467 Phase I inspections were conducted requiring a total of 39,826 inspector man-hours. Phase II lasted 60 days during which in-depth inspections were done on 43 air carriers, and special purpose teams visited or observed operations at 89 different air carriers and aviation support organizations. (A list of all organizations and carriers inspected in Phase I and Phase II is found in Appendix F.) In comparison with the normal FAA inspection rate, NATI conducted 3.8 times as many Phase I inspections in the given period as would typically have been conducted and 4.2 times as many in-depth inspections. (See specific figures in Appendix G.)

THE RESULTS OF NATI

NATI accomplished its objectives by identifying and assessing deficiencies in compliance among air carriers, by taking the necessary steps for correcting deficiencies, and by accumulating inspection information that would be analyzed to detect trends in air carrier operations and FAA surveillance that affect safety. The following section describes the immediate accomplishments and results of NATI and discusses some of the benefits and consequences of the increased inspections.

IDENTIFICATION OF DEFICIENCIES

The twelve types of inspections conducted during Phase I covered many individual items or systems. (See Table G-3 in Appendix G.) Of the more than three quarters of a million items or systems that were inspected during Phase I, less than one-half of one percent (0.5%) were found to be deficient to some degree. In view of the complexity of the systems involved, this represents a high degree of compliance.

The types of inspections conducted during Phase I and the methods employed in Phase II in-depth inspections were designed to detect non-compliance with regulations, standards, and good/safe operating practices. The types of deficiencies found ranged from isolated incidents of non-compliance having little or no safety consequences, to relatively serious incidents of non-compliance having a direct adverse effect on the safety of operations. Often a deficiency by itself does not appear to be very serious, but when taken in the aggregate with other deficiencies,

could indicate a serious breakdown in methods and systems used to assure compliance.

Examples of air carrier deficiencies found during the NATI program are as follows:

1) OPERATIONS:

a) Improper weight and balance control procedures and inaccurate or incomplete records and/or computations.

b) Inaccurate or incomplete flight and duty time records.

c) Lack of, inaccurate, or incomplete flight and cabin crew training records.

d) Lack of, inaccurate, or incomplete flight crew qualification and currency records, including medicals.

e) Non-compliance with approved manual procedures and checklists.

f) Flight crews not recording maintenance deficiencies in aircraft log books.

g) Inexperienced, unqualified, overextended, and/or ineffective management personnel.

h) Lack of control of carry-on baggage.

i) Non-compliance with approved training programs.

j) Use of training programs inappropriate for the aircraft being used or the operation being conducted.

k) Flight and cabin crews not having required certificates, charts, equipment, and current manuals in their possession.

l) Lack of current company manuals at stations.

m) Lack of knowledge and improper application of the intent of the Minimum Equipment List (MEL).

2) AIRWORTHINESS:

a) Personnel not properly trained or authorized to perform required inspection items (RII) procedures.

b) Improper or lack of performance of RII work.

c) Lack of or inadequate training programs.

d) Lack of, inaccurate, or incomplete training records.

e) Unfamiliarity with company policy, procedures, and maintenance manual requirements.

f) Continuing analysis and surveillance programs improperly implemented.

g) Lack of knowledge and improper application of the intent of the Minimum Equipment List (MEL).

h) Maintenance programs inappropriate or incompatible for the aircraft being used or the operation being conducted.

i) Inappropriate or absent check lists for maintenance tasks performed or for type of maintenance concept approved for the air carrier.

j) Incomplete, inaccurate or lack of records of Airworthiness Directive compliance or time control requirements.

k) Aircraft not properly equipped with required emergency equipment.

l) Unauthorized or improper modifications and/or repairs.

m) Inexperienced, unqualified and/or ineffective management personnel.

n) Open discrepancies after performing major maintenance.

o) Stations not properly equipped.

p) Special tools and equipment not available or out of required calibration.

ACTIONS TAKEN ON DEFICIENCIES

As a result of NATI, deficiencies and problem issues have been or are being resolved. Copies of Phase I reports were immediately forwarded to the District Office having certificate responsibility for the particular air carrier. District Office personnel were instructed to process these reports in accordance with existing procedures. Minor and non-regulatory deficiencies found during inspections were often quickly resolved by bringing the matter to the attention of the air carrier's management. More serious deficiencies which required more time to correct were dealt with by requiring the air carrier to revise its manual policy, procedures, and guidance or to modify its programs or operations specifications. Regulatory noncompliance is processed

in accordance with the FAA's Enforcement and Compliance Order (Order 2150.3). Further investigations are conducted as necessary, and Enforcement Investigative Reports are prepared by the District Office and forwarded to the Regional Office for review and legal processing. In some cases, the legal process has resulted or will result in civil penalty or certificate action. Since deficiencies recorded in Phase II inspections are often complicated and require considerable effort to correct, Regional Offices forwarded a completed final follow-up action to Headquarters. (A sample of a Phase II in-depth inspection final report can be found in Appendix H.)

As a result of actions taken on deficiencies and/or violations of regulations during both phases, the operations of 16 air carriers were significantly affected. (See Table D-3, Appendix D.)

THE SPECIAL PURPOSE TEAM SURVEYS

The Special Purpose Teams have completed interim reports. (For a list of the subjects covered by these reports, see Appendix D.) These reports are being analyzed and evaluated. The results will be used to support the FAA long-term review. (For discussion of this FAA long-term program, see page 22.)

IMPROVING COMPLIANCE AND PROMOTING SAFETY

One of the results of NATI was an immediate improvement in compliance. Several factors influenced air carriers to tighten up their safety systems. Briefing sessions were held with air transportation associations prior to the implementation of NATI. The following associations were briefed: Air Transport

Association of America (ATA), Regional Airline Association (RAA), National Air Carrier Association, Inc. (NACA), Aerospace Industries Association of America, Inc. (AIA), Air Line Pilots Association (ALPA), Association of Flight Attendants (AFA), International Association of Machinists and Aerospace Workers (IAM). The briefings emphasized Section 601(b) of the Federal Aviation Act of 1958 which specifies the duty of the air carrier to perform its service with the highest possible degree of safety in the public interest. The associations were told that NATI would be concentrating particularly on this section of the Act. In addition to the briefing, letters on the meaning of the Act were sent to field inspectors who in turn discussed the matter with individual air carriers. (See Appendix I.) Also, the news media were briefed on the NATI program.

These initiating steps plus the high level attention given to NATI within the FAA and by the Secretary of Transportation led both field inspectors and air carrier management to recognize that no avenue of appeal from the inspections was available and that cooperating with the program would be to their benefit.

Many indications of self-improvement of air carrier systems were evident as a result of NATI. Because of the publicity associated with NATI, air carrier management expressed concern about being selected as a candidate for Phase II. As a result, some air carriers conducted self-audits of their systems and made corrections prior to NATI inspection. A captain for a large Part 121 air carrier reported that his union's Safety Committee had been more successful than usual in gaining company

approval of safety recommendations. The company apparently felt that accepting the union's recommendations would be more prudent than waiting to make safety improvements as the result of an enforcement action. The comments from crewmembers, mechanics, other employees, and field inspectors indicated that much needed improvements in manuals and/or procedures began to occur as a result of the attention NATI was receiving.

Furthermore, when inspections occurred and deficiencies were brought to the attention of air carrier management, in most cases the management took strong, positive actions to correct the deficiencies. Air carriers even grounded aircraft, withdrew pilots from service, or in one or two cases surrendered their operating authority. Other air carriers revised record keeping methods, operational and airworthiness procedures, manuals, and programs. In a number of cases, air carriers changed their organizational structures and replaced or reassigned management personnel.

Overall, one of the most beneficial immediate results of NATI was that it inspired air carrier employees and FAA field personnel to do a better job. The emphasis provided through this program helped to focus the attention of these individuals on the important and critical role they play in assuring safety in air transportation.

EFFECT ON FAA RESOURCES

Because of the demand on FAA resources, NATI did result in temporarily reduced FAA service in other, non-critical areas. "Demand" work, such as certification of air carriers and airmen, was deferred and rescheduled. Regional Offices reported that

through liberal use of compensatory time, shifting resources from one office to another, and supplementing inspector resources with managers and supervisors from Flight Standards organizations, the actual reduction in FAA service over this period was kept to a minimum. Attendant to this reduction, only three complaints about certification delays were received.

As was anticipated, NATI significantly increased the FAA workload. Regional NATI offices report that a backlog of non-critical work accumulated. This backlog included corrective and other follow-up activity resulting from NATI; however, none of this postponed activity was critical to the immediate safety of any air carrier. In addition, considerable amounts of compensatory time accumulated as inspectors worked in excess of the normal work week. Inspectors' annual leave was cancelled and/or rescheduled. In some cases, inspector training was cancelled or rescheduled. The extraordinary effort of the NATI could not be sustained indefinitely or conducted repeatedly without augmenting resources.

In relation to the above, NATI did use the available resources to maximum effect. For example, Phase I inspections were limited to twelve standardized types with specific instructions on how and when to conduct inspections. Standardized forms were used which contained overprinted "directed emphasis items" to focus inspector attention on specific areas which were to be inspected nationwide. Standardizing and limiting the inspections in this way not only facilitated the inspection, but also the review and evaluation of the inspection reports. The "inspection quota" adopted for each region plan was an effective way of

obtaining an equitable distribution of inspections while avoiding excessive concentration or duplication for any air carrier or locale. Finally, the in-depth inspection teams were briefed by Headquarters coordinators prior to the inspection. The teams received standard briefing inspection reports on the subject air carrier. They were instructed as to the scope of the inspection. A Principal Inspector assigned to the air carrier attended these briefings and gave the team additional information about the air carrier. Thus, the teams had an understanding of the task they were to perform and how that task fit into the overall NATI program. (See Appendix I.)

Centralized direction and control by the Headquarters NATI Program Office through Regional NATI offices, and finally to the District Offices helped greatly to achieve maximum efficiency of inspector resources. Via this organizational structure, problems were addressed in individual instances and resolved on a nationwide basis.

ACCUMULATION OF INFORMATION

A major product of NATI was the collection and collation of information which will provide the FAA with a data base for the FAA long-term review of the entire aviation safety inspection program.

Three categories of information were collected during NATI. The first category was information needed to update the FAA's Air Operator Data System which contains basic information about air carriers operating under Part 121 and Part 135. The system was found to contain some erroneous information and in some cases did

not reflect accurately an air carrier's operating authorization. Also, the information in the system had been limited to the air carrier's name, certificate number, address, names of officials, and types of aircraft operated. To correct this, the NATI Program Office directed all District Offices to update each Air Operator Data Report and to provide a supplement to the Report. The supplement provided information on each air carrier such as numbers of crew members, mechanics, dispatchers; number and location of domiciles; number of aircraft operated; training locations by types of training; reliability programs; and contractual arrangements. All of the information from the Air Operator Data Report and supplement has been audited and filed. It updates the present Air Operator Data System and provides additional information for future use by the FAA long-term review.

The second category of information was the Phase I inspection reports which were collected, collated, and forwarded to Headquarters. A team of six retired FAA inspectors were hired to analyze and evaluate each report. They developed a standard form to record the results of the analysis. The form was used to help in the review process and also to help in computer entry, sorting, and output. The information extracted from the Phase I inspection reports includes information about the air carrier as well as information about the inspection procedures. Thus the data can be used to analyze and evaluate the performance of the air carrier, the efficiency of various types of Phase I

inspections, and the performance of the field inspector force. This data will be used in the FAA continuing long-term review.

A third category of information collected during the NATI program consisted of field inspector experience and training profiles, and information on regional air carrier environment. This information will also be used in the FAA long-term review.

FAA PROGRAMS AND RELATED ACTIONS

The FAA has implemented a number of actions which directly respond to the NATI findings. Most of these actions had already been initiated or were in the planning stage prior to NATI; however, the findings of NATI confirmed the need for such actions and have served as an impetus for their continuation and further development.

The Safety Analysis and Functional Evaluation Program (SAFE)

The most comprehensive of all the actions underway is SAFE, a long-term program that will analyze and evaluate in detail the FAA inspection, surveillance, investigation, and training and procedural practices. These will be modified as appropriate to achieve the best oversight program in transportation safety. SAFE began in May, 1984, as part of the FAA's response to the Secretary's directive that the agency conduct a long-term review of all aviation safety practices. The first phase of SAFE is a national study of flight standards jobs in District and Regional Offices. The study documents the manner and methods inspectors use to accomplish work tasks, the amount of time they spend on tasks, and the individual steps they perform for each task. Information from the job-task analysis is being placed in the program and will be used to update the data base.

The second phase will validate the job-task analysis of Phase I. Based on survey information, interviews, handbooks, advisory circulars, and other guidance materials; a panel of "subject matter" experts will identify each inspection,

investigative, and surveillance task. The panel will list steps involved in performing the task, determine the percentage of time needed to perform the task, and identify the regulation or handbook directive that requires the task to be done. The result of the analysis by the panel will be a validated task list including all work elements. This information will be stored and be readily retrievable through computer processing. Training personnel will formulate learning objectives from the validated task lists. Training will be revised based on the tasks identified by the panels.

By early summer of 1985, the panel of "subject matter" experts will reconvene to review in detail the existing regulations or other standards and criteria established for each task. The panels will determine if regulations or other directives for each validated task are current and understood.

The panels will also determine if established certification, inspection, and surveillance practices are appropriate to the present and future aviation environment. For example, new tasks may need to be developed in order to meet technological advances in aviation. Validated tasks may need additional elements added to them.

The information accumulated and analyzed can be used by FAA managers to decide how best to use available resources. SAFE will rank the tasks according to their critical nature and determine the relationship between the number of inspectors and the number of critical tasks. SAFE data will also be used to standardize, within regions, the work effort spent on various

tasks. Although the aviation environment and the work efforts may vary among regions, SAFE will provide standardization of particular tasks and guidelines on the time needed to perform the tasks.

The FAA organizational structure and management process will also be examined in light of the job task analysis and the regulatory review. This examination will include a review of the benefits derived from decentralization of authority.

As the study progresses, actions will be taken on any findings that indicate a need for change.

Handbook Revisions and Advisory Circulars

An action that was underway prior to NATI, whose importance was confirmed by the NATI findings, was the updating of the guidance material for Field Inspectors, particularly the inspector handbooks for flight operations and airworthiness. Sections of the handbooks were not consistent with recent technological advances and with innovations and changes in air carrier operations. Thus, major handbook rewrite efforts have been underway and for the most part are completed. The Flight Operations handbook material covering air transportation will be provided in two separate handbooks, one for large air carriers and another for air taxi operators. The material in each has been reviewed for consistency and uniform application of inspection techniques. The airworthiness handbook, which previously consisted of different handbooks for air carriers, air taxi operators, etc. will be consolidated into one comprehensive handbook.

One important focus of the update has been the material on issuing new certificates and surveillance of new certificate holders which would include air carriers that have undergone substantial expansion or change in scope of their operations, or new air carriers. The updated handbooks require follow-up surveillance until the inspector is satisfied that the new systems are operating properly.

Generally, the revised handbooks provide more specific and more timely guidance to inspectors and will assure a higher degree of standardized inspection practices.

Advisory Circulars (ACs) on particular types of operations such as Category II and III operations, also are being revised in relation to technological changes. These ACs provide updated guidance to the industry as well as the FAA on acceptable methods of compliance with regulations.

Training Programs

To standardize to a greater degree the application of Federal Aviation Regulations by air carrier principal inspectors, the FAA has initiated two separate training programs. The Office of Airworthiness, with the help and cooperation of Regional Offices, has created a "Certification and Surveillance Refresher Seminar for Airworthiness Inspectors." The seminar provides 32 hours of specialized instruction on:

Maintenance Organization

Manuals and Records Review

Deferred Maintenance/MEL Compliance

Continuing Analysis and Surveillance Systems

Reliability Programs

Contractual Arrangements for Maintenance

Teams will begin presenting the seminars at regional locations beginning October 22, 1984. The seminar is required training for all airworthiness air carrier, general aviation, and avionics inspectors.

A resource manual has been prepared for the refresher seminar which covers the inspection problems most likely to occur. The range of topics covered in the seminar and the level of specificity will help to provide clear, complete, and timely standards for inspectors.

The Office of Personnel and Training, with the help and assistance of the Office of Flight Operations and field offices, is developing a special course for Principal Operations Inspectors. The course will offer one week of instruction which includes treatment of problems in operational compliance confirmed by the NATI. The objectives of the course are to make the inspectors fully aware of their responsibilities and of the need for standard application of requirements. The course will also familiarize inspectors with the latest techniques and procedures needed in light of existing and future technologies. The course focuses on policies and procedures, and pays particular attention to methods for dealing with air carriers who might have compliance problems.

Policy Guidance

In general, no major policy changes will be made until all of the information from NATI has been thoroughly analyzed. In

the meantime, as NATI findings indicate problems that require immediate attention, internal policy guidance letters have been and will continue to be issued to Regional and District Offices. For example, the subjects of contract dispatch services and contract check airmen have already been addressed.

Inspection Workforce

In response to the Secretary's directive to increase the number of field inspectors by 25 percent, the FAA has increased its air carrier inspectors from 479 in February 27, 1984, to 674 on September 30, 1984. This is an increase in the inspector work force of 195 over the actual number of inspectors on-board prior to the Secretary's directive.

The Aviation Safety Analysis System (ASAS)

The ASAS is a computer based system designed to improve the safety analysis function. It will also give the aviation standards organization of FAA access to current information in support of certification, surveillance, and pursuit of enforcement action. The system is designed to increase the efficiency, productivity, and management control of the various aviation standards activities. ASAS has been under development for several years and involves a large number of subsystems focusing data collection, storage, access, analysis, and dissemination capabilities on each of many critical areas. One of these is the Air Transportation Analysis Subsystem (ATAS) which will support FAA responsibilities related to air transportation operations and standards.

The ASAS will provide all levels of FAA including field inspectors, District Offices, Regional Offices, and headquarters personnel with up to date information about each air carrier. This information will include the types of operations which have been approved, the applicable operating regulations, the composition of the civilian aircraft fleet, information about the management of the airline and many other items which are important for surveillance and investigations. The system is also designed to assist an inspector with the task of certificating a new carrier or approving new operations of an existing carrier by indicating which requirements must be met by the carrier. Further, by having information readily available for all air carriers, the ASAS will facilitate uniform application and interpretation of requirements and compliance methods throughout the nation.

The initial phases of design have been completed for the Air Transportation Analysis Subsystem, and use of this system will begin in the next few months. Other elements of ASAS which will support air carrier certification and surveillance such as the Accident and Incident Data System and the Service Difficulty Report System are already in place.

GENERAL OBSERVATIONS AND CONCLUSIONS

Preliminary analyses and evaluation of the data collected indicate several areas in which the FAA inspection and surveillance system can be improved. These are discussed in the following sections.

GENERAL FINDINGS

The overall findings of the 90 day NATI program may be summarized as follows:

o During Phase I inspections, more than three quarters of a million individual items or systems were inspected. (See Table G-3 in Appendix G.) Preliminary analysis of the results show that less than one-half of one percent (0.5%) of the items or systems inspected were deficient in some respect. This represents a finding of a high degree of compliance with regulations, standards, and good/safe operating practices; it indicates, at least, that despite the changing transportation environment, deficiencies are rare. In addition, the inspections show that virtually all of the air carriers included in the NATI program were found to be operating at a level of safety commensurate with that required by the Federal Aviation Regulations.

o A high level of compliance was found throughout all segments of the industry. Carriers generally in compliance with regulations were not only those with extensive experience or high levels of financial stability, but also new air carriers, air carriers that had experienced rapid growth and operational

change, and air carriers reputed to be in a financially difficult position.

o Of the air carriers who had compliance difficulties and who were selected for Phase II inspections, a large number had one or more of the following characteristics: a) they accomplished a significant amount of maintenance and/or training via contracts; b) they had recently experienced a major change in scope or type of operation, such as significant route expansion, fleet expansion, or introduction of new types of aircraft; or c) they were experiencing financial, labor/management, or other corporate problems. Thus, the inspections confirmed that air carriers that are experiencing management or organizational problems are more likely to have difficulty in assuring compliance with safety regulations.

o Specific regulatory areas, such as minimum equipment lists, and approval of maintenance and training programs were shown to be problem areas for a number of air carriers, including many of the long-time Part 121 carriers. Since a few long standing regulatory areas are frequently the subject of deficiencies, even for experienced Part 121 operators, it appears that the regulatory intent of these requirements is not clear either to FAA inspectors or to air carrier management.

o The rapid growth in the number of air carriers over the past six years dramatically increased the demands on inspector resources at a time when inspector resources had declined. This has resulted in a shift of emphasis from inspection to certification. Since inspection appears to influence air carriers to achieve higher degrees of compliance, the shift from

inspection to certification can result in a lower degree of compliance on the part of some operators.

o The trend is increasing among air carriers to contract out major functions such as training, maintenance, and operational support which traditionally were performed in-house. While contracting for services is not in itself a safety concern, and could even be a safety plus, an air carrier that contracts out too many of its major functions may lose control of the management of those functions. The subject of increasing levels of contracting for service is being addressed by the FAA through new training programs and new inspection procedures.

o Air carrier organizational structures and management functions, with the associated internal audits, checks, and balances, have been affected by the more highly competitive environment. Marketing and financial matters now play a much more influential role in many air carrier management decisions than was the case a few years ago. It is important for the FAA and the industry to verify that safeguards are in place which will prevent any adverse effects on safety as a result of these considerations.

Conclusions

These findings point to the following conclusions:

1. When FAA information collection activities are geared to obtaining, evaluating, and promptly acting on information concerning changes in an air carrier's operations, that information can provide a warning signal for potential safety problems. Items to be reported would be:

a) A significant new or changed operation by a new carrier or a significant change in operations of an existing carrier, such as a change in range of operation or in size or type of aircraft flown.

b) Significant management problems such as financial distress and labor/management disputes.

2. FAA should continue to review its regulations and implementing documents (Advisory Circulars, inspectors' manuals, etc.) to ensure that the intent of these requirements is clear. (A brief summary of FAA actions in those areas is found on pages 22 through 28.)

3. FAA should continue to increase the number of inspectors and should make every effort to ensure that the momentum of the NATI program is not lost even if the intensity of that effort cannot be maintained over time.

4. FAA should review the issue of air carriers contracting out major functions to determine whether additional regulatory requirements (or guides) are needed to ensure that safety is not derogated.

5. FAA should monitor the appropriate air carrier management changes to ensure that marketing and financial decisions do not result in reduction of operating safety.

APPLICABILITY OF REGULATORY STRUCTURE TO PRESENT ENVIRONMENT

The NATI inspection confirmed that in the last few years a change in the air carrier operating climate has occurred and that there is need for review and updating in many of the regulations, policies, and practices particularly as they relate to Part 121.

The basic regulations that apply to the operations of air carriers are contained in FAR Parts 121 and 135. Because of the significant number of changes that have occurred in the operations of "small" airplanes by air carriers, Part 135 has been substantively revised several times over the last 20 years, the most recent revision having been issued in 1978. In contrast, Part 121 has not changed significantly, primarily because the regulatory and operating climate that existed when Part 121 became effective early in 1965 remained fairly stable until after the Airline Deregulation Act of 1978.

The NATI program focused the attention of field inspectors as well as Headquarters staff on basic regulatory issues and questions in a way that does not always happen in day-to-day operations. The NATI program uncovered issues, which are listed below, that will be examined because present regulations may not adequately address the complex organizational changes that are occurring in the air carrier industry.

- Part 121 establishes qualifications for management personnel for supplemental air carriers but not for other scheduled Part 121 carriers.

- Present regulations and guidance material do not address the question of the extent to which an air carrier can contract out its operations. Theoretically, an extreme interpretation could hold that under existing regulations virtually every function required by the regulations can actually be performed by persons who are not employees of the carrier.

o Many operational requirements are directed to an operational environment that no longer exists. For example, Part 121 requires scheduled air carriers to establish and maintain extensive spare parts inventories, independent two-way air/ground and land line communications systems, weather reporting facilities and dispatch and flight watch systems. Although the requirements may be necessary, the technical detail in the present regulations may be obsolete or inappropriate in the present operating environment.

Conclusions

These findings point to the following conclusions:

1. A continuing review of specific FAA air carrier certification and operating rules, and guidance material is necessary to ensure that all of these adequately address management and other safety related issues in the context of the current operating environment. In addition there is a need for a long-term comprehensive analysis of air carrier regulations. (This has been discussed in more detail on page 22.)

2. The FAA should capitalize on the NATI-inspired interchange between and among its inspection personnel to update its present regulations and guidance material and to assure that regulatory guidance is consistent with actual field experience.

3. The existence of regulations which are difficult to enforce or the need for regulatory modifications to accommodate new or substantially different air carrier environments tends to work against the goal of an efficient and effective inspection and surveillance system. The FAA must continue to seek ways to

streamline the regulatory process and reduce the time it takes to complete a regulatory project.

DEFICIENCIES IN COLLECTING AND MANAGING INFORMATION

The NATI Program verified that there is room for significant improvement in the present methods for collecting and managing information related to the operations of the air carrier industry. In the process of program planning, selecting air carriers for inspections, and analyzing results of inspections and special studies, the NATI teams found several instances of unfulfilled information requirements.

The teams found that present means for systematically assimilating and analyzing all of the raw air carrier data are insufficient to provide useful, timely information for inspectors. Often it was necessary to use relatively expensive, inefficient, and labor intensive methods to obtain the required information. Although some of this problem was due to the abnormally high level of the effort, much of it was generic to the inspection functions. Such techniques are obviously not compatible with long-term FAA requirements.

The Air Operator Data System, which contains basic information about air carriers operating under Part 121 and Part 135, was an important resource for many NATI activities. However, a large number of errors in the system were found. The NATI Program provided a very useful means for updating and supplementing the Air Operator Data Base information.

Conclusions

These findings point to the following conclusions:

1. Managing an effective inspection and surveillance program in order to identify adverse trends requires improvements to the present FAA methods for information collection, analysis and dissemination.

2. Real-time, reliable information should be available to all inspection and surveillance personnel covering subjects such as: techniques for carrying out inspections, operator and airmen information, enforcement actions, and the status of inspector resources.

3. Additional information concerning the performance of the field inspector force is needed to upgrade and improve training programs and written guidance material.

4. The Air Operator Data System, although substantially updated, is still in need of corrections and enhancements. The developments required to assure a more accurate and useful Air Operator Data Base are a major thrust of the Aviation Safety Analysis System (ASAS).

5. The NATI Program has reaffirmed the need for comprehensive information about air carrier operations to be readily available and for that information to be consistent from one region to another.

STANDARDIZING FAA AND INDUSTRY POLICIES AND PRACTICES

For most of the last 20 years the FAA has functioned in a highly decentralized manner. An advantage of decentralization is that the FAA is able to respond quickly to many industry and

public needs through its Regional and District Offices. The disadvantage is that the response may not be identical to the response of another region. Given the fairly static nature of the regulatory underpinning of air carrier operations (particularly Part 121 operations), and the decentralized management structure of FAA, FAA field offices have been forced to grapple with numerous problems not necessarily envisioned by the present regulations. Often this has meant addressing problems and devising solutions field office by field office in a piecemeal fashion.

The NATI operation focused attention on this problem because it brought together teams of inspectors from different regions and in different areas of expertise. In addition, it gave air carrier officials the opportunity to discuss their problems with others and to discover that other carriers and other FAA offices had differing ideas about the "acceptable" approach to a regulatory requirement.

Over the long run, the decentralized solution to what may be potentially broad based problems has led to a lack of standardization in the application of policy. NATI showed that these inconsistencies in the application of policies and practices exist both within the FAA and among the air carriers on a nationwide basis.

The NATI participants, in particular the Phase II teams, observed a number of instances of nonstandard application of policies and practices. Such nonstandard applications occurred particularly among the following:

- o Methods of approval of Minimum Equipment Lists (MEL) and the application and use of air carrier developed MELs.
- o Methods of approval and use of simulators for flight training and airmen qualification requirements.
- o Methods of approval and application of short-term escalations of maintenance time control limits.
- o Methods of approval and application of maintenance programs and the extension of program applicability to a particular air carrier's mode of operation.
- o Acceptance and approval of the depth and types of training and guidance material for air carrier personnel.

NATI participants also observed that the various regional approaches to inspection and surveillance of air carriers were creating situations such as the following:

o During peak work periods, or when inspector resources are in short supply, Region and District Offices tend to focus their inspection work on air carriers for which they have certificate responsibility. As a result, much less inspection work is accomplished on air carriers from "out of region." In other words, once an air carrier operates outside its certificate holding region or bases facilities in other regions, it can be subjected to less FAA inspection and surveillance. Despite the specific quotas assigned in the NATI program, a lesser rate of inspection work was still accomplished on the "out of region" air carriers.

o If one region initiates a "directed emphasis" inspection program, certain aspects of an air carrier's operation receive special attention while operating within that region. However, those same aspects of an air carrier's activity receive little or no attention in other regions. In addition, reports on "directed emphasis" inspections are forwarded to the air carrier's certificate holding office. Therefore, if the inspection was accomplished on an "out of region" air carrier, the region that initiated the "direct emphasis" program receives little or no feedback.

Conclusions

These findings point to the following conclusions:

1. The FAA should continue to improve communications between headquarters and field offices and among field offices to reduce inconsistencies and non-standard practices.

2. Through the use of the ASAS Air Transportation Analysis System, field inspectors and Regional Offices can have much needed access to important information such as the most current methods for handling specific problems.

3. Through the FAA inspector training programs that have been initiated, a higher degree of standardization should be achieved.

4. SAFE will provide important information for updating regulations and advisory circulars, for guidance and training for inspectors, and for allocating work resources.

QUALIFICATIONS, TRAINING, AND MANAGEMENT PRACTICES

During the NATI program, two important findings related to the training and qualifications of industry personnel were made. First, the appropriateness of a training program depends not only on the program itself, but on the level and type of experience of the person being trained. Certain training programs may be entirely appropriate for an air carrier where graduates will serve under the watchful eye of experienced personnel for a period of on-the-job training prior to accepting full responsibility for an assignment. In cases where such apprentice-type learning is not the normal process or cannot be accomplished because of an airline organizational structure, available resources or operating environment, formal training might have to be quite different. Assumptions are sometimes made that, if a certain program is valid and adequate for one air carrier, it should also be acceptable for all others. This assumption is erroneous. This is of particular concern where one carrier, not able to provide close on-line supervision of new personnel, contracts with another carrier for a training program developed on the assumption that a period of on-the-job training will follow.

Second, although key positions should be filled with experienced personnel, the nature of that required experience must be understood and considered in the context of the specific airline operating environment. A pilot or a maintenance person, with years of experience, may meet the necessary prerequisites for certain management positions; however, that background by itself may not be sufficient to develop, implement, and manage

methods and systems that assure compliance with the FAR and good/safe operating practices. These individuals need to have a complete understanding of the objectives of aviation safety standards and the Federal Aviation Regulations, including their interactions and their applicability to the nature and scope of their air carrier's operation. Problems encountered during the NATI program frequently were attributable to basic misunderstandings in these areas.

The NATI program also showed that inspector performance could be enhanced by upgraded guidance and training in the functions of inspection and surveillance. While the training in inspector, pilot, and mechanic technical skills is absolutely essential, it became apparent that more extensive guidance and improved training on inspection practices and techniques are also needed. In spite of this need, it was found in the NATI program that, training on inspection and surveillance methods received a relatively low priority.

In addition to needs for improvements related directly to personnel, NATI also found that management practices required upgrading. For example, the overall level of quality control (the systems, procedures, and skill levels) was found to be below that generally found a few years ago.

Conclusions

These findings point to the following conclusions:

1. A good understanding of the objectives of aviation safety standards and regulations and the respective responsibilities of the air carrier and the FAA is an essential

qualification for all air carrier management personnel. A number of air carrier management personnel do not adequately meet this requirement.

2. Based upon the very responsive attitude of air carrier management to deficiencies discovered during the NATI, it appears that a cooperative FAA/industry program to focus on personnel upgrading would be beneficial. The FAA has initiated discussions with industry to accomplish this objective.

3. The demands of the rapidly growing and changing air carrier industry have emphasized the need to continually upgrade the FAA inspector resources. Major new initiatives in inspector training areas are underway, as further described in the previous section entitled "FAA Programs and Related Actions."

4. The increase in the size of the inspector force directed by the Secretary, and the ASAS and SAFE developments to support more efficient use of inspector time will have a positive impact on future inspection and surveillance of air carrier operations.

APPENDIX A

NATI IMPLEMENTING DOT ORDER

The following DOT/FAA order was developed by the FAA Office of Flight Operations to provide the guidance for conduct of the NATI Program.

NOTICE

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8000.246

3/1/84

Cancellation
Date: 3/1/85

SUBJ: NATIONAL AIR TRANSPORTATION INSPECTION

1. PURPOSE. This notice implements a nationwide comprehensive inspection of air carrier operators performing air transportation and provides guidance for the conduct of this inspection.

2. DISTRIBUTION. This notice is distributed to branch level in the Offices of Flight Operations and Airworthiness; to division level in the Offices of Budget, and Personnel and Training; to branch level in the regional Flight Standards Divisions; to the division level of the Personnel Management, Budget, and Aircraft Certification Divisions in the regions; to all Flight Standards Field Offices; and to the Flight Standards Branch at the Aeronautical Center.

3. ACTION. The Air Transportation Division (AFO-200), Aircraft Maintenance Division (AWS-300), Regional Flight Standards Divisions, and Flight Standards Field Office inspectors will take action as necessary to complete the inspection and surveillance work functions and reporting tasks as outlined in appendices 1 through 5.

4. BACKGROUND. On February 13, 1984, The Secretary of Transportation directed the Federal Aviation Administration (FAA) to (1) increase the number and frequency of air carrier inspections, (2) conduct a series of short-notice inspections into any and all safety-related areas associated with air carrier operations (3) conduct inspections of all segments of the industry including established and new entrant air carriers, commuters and large air carriers, flight and ground operations and maintenance procedures and records, and (4) rectify specific problems identified during the course of these inspections. The plan of action outlined in this notice is designed to carry out the Secretary's directive.

5. APPLICABILITY. This notice applies to all Flight Standards personnel (Aviation Safety Inspectors, GS-1825) who are assigned Part 121 air carrier and/or Part 135 air carrier commuter associated work functions.

6. COORDINATION. This notice has been coordinated with the Office of Airworthiness, AWS-1.

Kenneth S. Hunt
Director of Flight Operations

Distribution: A-W(FO/WS)-3; A-W(PT/BU)-2; A-X(FS)-3; A-X(PM/BU/3D)-2; A-FFS-0 (MAX); AAC-950 (12 copies)

Initiated By: AFO-220/AWS-330

APPENDIX 1. NATIONAL AIR TRANSPORTATION INSPECTION PLAN OF ACTION

1. GOALS. The goals of the National Air Transportation Inspection (NATI) are:

a. Conduct increased numbers of inspections and surveillance of all FAR Part 121 air carriers and FAR Part 135 commuter air carriers.

b. Verify and assure, on a nationwide basis, the system integrity of air carriers that conduct air transportation.

c. Optimize the use of inspector resources to detect system deficiencies and to effectively resolve any problems or issues that are identified.

d. Intensify the promotion of safe operating practices.

e. Minimize the inspection impact on air carrier operational activities and the traveling public.

f. An interrelated goal involves the collection and collation of information, to provide a data base for the DOT/FAA long-term review of the entire aviation safety inspection program.

2. ASSUMPTIONS. The following assumptions are pertinent to the NATI plan of action.

a. The Federal Aviation Act of 1958, as amended, considers the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest. Increased inspection, surveillance, and personal contact with FAA inspectors will motivate air carriers to voluntarily take action, as necessary, to verify and assure their own system integrity.

b. The FAA's current inspection and surveillance practices are valid and will reveal, if any exist, air carrier system deficiencies. The FAA's current compliance and enforcement program is effective in promoting safe operating practices and assures a high level of overall compliance with the regulations.

3. DEFINITIONS.

a. "Air carrier" when used in this notice will mean FAR Part 121 air carriers conducting scheduled and non-scheduled (charter) operations and FAR Part 135 air carriers conducting commuter operations as authorized by their operations specifications. (Note: On-demand air taxi operations will not be included in inspections conducted and reported-on in accordance with this notice).

b. "Inspections" when used in this notice encompass inspections, surveillance, observations, analysis, and investigations unless this notice specifically indicates otherwise.

4. PLAN OF ACTION OVERVIEW. The basic NATI plan consists of two phases.

a. Phase I of the NATI plan provides for at least 3 weeks of intensified inspection and surveillance of all air carriers. Regions will, in accordance with Appendices 2, 3, and 4 of this notice, conduct increased "directed emphasis" inspections and surveillance of all air carriers that are either based in or transiting the region's geographic areas of responsibility. Reports of inspections will be forwarded directly to the Regional NATI Coordinator of the region that has certificate responsibility for the particular air carrier. The Regional NATI Coordinator (NATIC) will analyze and evaluate all inspection reports on their assigned air carriers. Based on the results of the evaluations made on the Phase I inspection reports, determinations and plans will be formulated for more indepth inspections or analysis, as appropriate.

b. Phase II of the NATI plan provides for the conduct of indepth inspections of particular air carriers or for additional inspection and/or analysis of selected segments of the industry (e.g., contract training, MEL, parts pools, etc.). Both Phase I and II of the NATI plan of action will be directed and coordinated by a Headquarters NATIC through the Regional NATIC.

c. It is anticipated that Phase I of the NATI program will commence approximately the first week of March and continue for a three-week period. Any adjustments to the duration of Phase I will be directed by the Headquarters NATIC. Phase II inspections may be required at any time after commencing Phase I or following Phase I completion. For planning purposes, it is expected that Phase II inspection activity will take at least 60 days. Adjustments to the Phase II schedule will be made as necessary, based on the outcome of Phase I or as directed by the Headquarters NATIC.

5. GENERAL RESPONSIBILITIES.

a. The Air Transportation Division (AFO-200) and the Aircraft Maintenance Division (AWS-300), FAA Headquarters, will provide facilities and administrative support for the Headquarters NATIC. The Headquarters NATIC will develop, publish, and distribute directives and reporting forms as necessary. The Headquarters NATIC will direct and coordinate the NATI program on a nationwide basis and prepare status reports and final reports, as appropriate.

b. Regional Flight Standards Division Managers will appoint qualified regional NATIC's. Regional Flight Standards Divisions will provide facilities and administrative support for the Regional NATIC's. Regional Flight Standards Divisions will identify a cadre of Aviaton Safety Inspectors (operations and airworthiness) to participate in Phase II inspection activities in accordance with appendix 5 of this notice.

c. District Offices will conduct the types and numbers of inspections as specified by appendices 2, 3, and 4 of this notice or as directed by the Headquarters NATIC. District Offices will forward reports as specified in Appendix 2 of this notice. District Offices will adjust work programs as necessary to meet the requirements of this notice and as directed by the Regional NATIC. District Offices will provide and support Aviation Safety Inspectors, identified by Regional Flight Standards Divisions, to participate in Phase II inspections.

6. HEADQUARTERS NATI COORDINATOR. The Headquarters NATIC will direct the overall NATI program in coordination with the Regional NATIC's. All NATI inspection forms and directives will be developed and distributed by the Headquarters NATIC for field office reproduction and use. Phase II inspections will be directed by the Headquarters NATIC based on the reports generated during the inspections conducted during Phase I. The inspection team and scope of the Phase II inspections will be determined in accordance with appendix 5.

7. REGIONAL NATI COORDINATORS. The Regional NATIC will either be the assistant to the Flight Standards Division Manager or a highly qualified inspector experienced in air carrier/commuter operations who is authorized to make decisions and act in behalf of the Division Manager to assure completion of the requirements of this notice. The Regional NATIC will direct and coordinate all regional inspection activities in support of both Phase I and II of the NATI program. The Regional NATIC will collect, collate, and evaluate the reports of inspections and surveillance conducted on each air carrier certificate based within their region. In the case of split certificates, respective Regional NATIC's will make specific arrangements for the collection and evaluation of reports. Based on their evaluation of Phase I reports, the Regional NATIC will prepare summaries of the safety compliance posture of each air carrier certificate based in the region, to include recommendations for Phase II inspection activity. Summaries will be prepared in accordance with appendix 2 of this notice. The Regional NATIC's will be responsible for presenting their summaries and recommendations to the Headquarters NATIC. Regional NATIC's will support and coordinate all Phase II inspections conducted on air carrier certificates based within their region or conducted on segments of the industry based within their regions.

8. PREVIOUSLY SCHEDULED SPECIAL INSPECTIONS. Regions which have previously programmed special indepth inspections for completion during the NATI reporting period will continue as scheduled. The inspection reports, however, will be submitted to the Regional and Headquarters NATIC's as part of the NATI program evaluation.

APPENDIX 2. NATIONAL AIR TRANSPORTATION INSPECTION - PHASE I

1. GENERAL. Regions and District Offices will make every effort to conduct and report on the types and numbers of inspections in accordance with appendices 3 and 4 of this notice. Unless otherwise directed by the Headquarters NATIC, inspection activities will be limited to U.S. air carriers operating in the Continental U.S., Alaska, Hawaii, and Puerto Rico. Prudent scheduling of inspector resources in order to maximize the quality and quantity of the Phase I inspection effort is essential. Phase I inspection activity will be scheduled to include air carrier activity that is conducted at NIGHT and during WEEKENDS.

2. INSPECTOR RESOURCES. Regions and District Offices will utilize all available qualified inspectors on Phase I inspection activity, including managers and supervisors. Regions are authorized to provide for "restored leave" to accomplish Phase I and II inspections and associated administrative activities. Regions are authorized to provide for deferred compensatory time to accomplish Phase I inspection and administrative activities. Regional Flight Standards Division staffs will be utilized to the maximum extent possible to supplement District Office inspector resources during Phase I inspection activities (e.g., Branch managers, specialists, and situation monitoring/AQAFO staffs). Academy instructors and the National Simulator Evaluation Team will support and supplement District Office inspector resources during Phase I inspection activities, when such support will not preclude currently established schedules. Regions and District Offices will adjust normal work programs including the deferment of certification work to the extent necessary to accomplish Phase I inspection activities. However, good judgement must be exercised so as not to cause undue burden to individual operators or airmen. Close coordination with the Regional NATIC on work program adjustments is essential.

3. EXECUTIVE SUMMARIES. Each District Office will complete an executive summary on each FAR Part 121 air carrier and each FAR Part 135 commuter air carrier for which it has certificate responsibility. The executive summary will consist of two parts. The first part will be the completion of the Operator Data Report (ODR) in accordance with FAA Order 8000.1E. The second part will be the completion of the ODR supplemental form depicted in figure 2-1 of this appendix. District Offices will locally reproduce the ODR supplemental form depicted in figure 2-1, enter the information requested, and submit both the completed ODR form and the ODR supplemental form to the Regional NATIC by the close of business of the first week of Phase I of the NATI program. Regional NATIC's will assure that they are in receipt of all required executive summaries.

4. PHASE I INSPECTION REPORTS, COMPLETION AND DISTRIBUTION. The inspection report forms as modified and/or supplemented by appendices 3 and 4 of this notice will be locally reproduced and used to report on inspection activities during Phase I of the NATI program. Readable, hand written reports are acceptable and District Offices will avoid time-consuming typing tasks. Each report will have a place to record the total time spent on the inspection and, in some types of inspections, time spent on separate phases of the inspection. Inspectors will record only the time spent on the actual inspection. Do not include the time spent on travel, report preparation, or distribution. All

Phase I reports will be clearly identified as a NATI report. Distribution of the Phase I inspection reports will be as outlined below:

a. The original of each completed inspection report will be expeditiously and directly forwarded to the Regional NATIC that has certificate responsibility for the air carrier inspected. All reports will be routed to the appropriate Regional Flight Standards Divisions - 200; attention NATIC. During the last week of the Phase I inspections, District Offices will, on a daily basis, consolidate the inspection reports and forward them by overnight mail.

b. A copy of the completed report will be routinely forwarded to the District Office which has certificate responsibility for the air carrier inspected.

c. A copy of the completed report will be retained by the District Office or home office of the inspector conducting the inspection.

5. REGIONAL NATI COORDINATOR SUMMARIES. Figure 2-2 of this notice provides a standard format for the completion of the Regional NATIC summaries. The standard format will be locally reproduced and used by the Regional NATIC. One summary will be prepared for each air carrier for which the region holds the certificate. In the case of split certificates, the respective Regional NATIC's will coordinate and agree as to who will prepare the summary and present it to the Headquarters NATIC.

a. Items 1 through 8 and item 12 of the standard format are self-explanatory.

b. Item 9 of the standard format should contain a brief narrative of the method used in the evaluation. Was the evaluation made on strictly Phase I inspection reports or was other information also used (i.e., enforcement, accident/incident information)? If other information was used in conjunction with Phase I inspection reports, be specific. Item 9 should briefly explain how conclusions were reached.

c. Item 10 should briefly state the conclusions reached from the evaluation of the inspection reports and other information. If no deficiencies were noted, elaborate on the air carrier compliance posture. Conversely, if deficiencies are noted, be specific in the conclusions.

d. Item 11 should contain the Regional NATIC's recommendations with respect to any followup action. If no recommendations are appropriate, enter "none." Recommendations may range from an indepth inspection of one segment of the air carrier's operation to an indepth inspection of the air carrier's entire system. Item 11 can be used to recommend inspections or analysis of segments of the industry that have commonality, such as weather dissemination systems, contract training/maintenance, etc. However, in this case the recommendation should stem from the evaluation and conclusions reached in items 9 and 10. Appended to the Regional NATIC's summary will be copies of all the Phase I inspection reports along with any other information used in developing their evaluation, conclusions, and recommendations. When directed to do so, the Regional NATIC will present and brief their summaries of each assigned air carrier, to the Headquarters NATIC.

6. COMPLIANCE AND ENFORCEMENT PROCEDURES. Violations of regulations discovered during the NATI Phase I program will be investigated and processed in accordance with Order 2150.3, Compliance and Enforcement Program.

FIGURE 2-1. OPERATOR DATA REPORT SUPPLEMENT

1. NAME OF OPERATOR. _____ Certificate Number_____

a. Commenced operations as a:

☐ Domestic/Flag _ _ _ _ _ _ _ _ _ _ _ _ ☐ Prior to 1978 or Mo.__ Yr.__

☐ Supplemental/Scheduled Air Cargo _ _ ☐ Prior to 1978 or Mo.__ Yr.__

☐ Commuter Air Carrier _ _ _ _ _ _ _ _ ☐ Prior to 1978 or Mo.__ Yr.__

☐ Nine or less passenger seats

☐ Ten or more passenger seats

☐ Other (explain below) _ _ _ _ _ _ _ _ ☐ Prior to 1978 or Mo.__ Yr.__

_____

_____

2. CREWMEMBER/MECHANIC/DISPATCHER INFORMATION.

a. Total number of:

(1) Pilots	_____	(6) Certificated Dispatchers	_____
(2) Flight Engineers	_____	(7) Mechanics	_____
(3) Flight Attendants	_____	(8) Maintenance Inspectors	_____
(4) Check Airman	_____	(9) Avionics Technicians	_____
(5) Line Check Airman	_____	(10) Certificated A&P Mechanics	_____

3. PRIMARY CREWMEMBER AND MECHANIC DOMICILE LOCATIONS (CITY/STATE).

a. Pilots and Flight Engineers. _____

_____

_____

_____

_____

b. Flight Attendants. _____

_____

_____

_____

_____

c. Mechanic and Other Maintenance Personnel. _____

_____

_____

_____

_____

4. TRAINING INFORMATION.

a. Crewmember and Dispatcher Training Bases.

Training Base Location (city/state)	Type of Training

b. Crewmember Contract Training.

Name of Contractor	Location (city/state)	Type of Training

c. Maintenance Training.

Training Base Locations (city/state)	Type of Training

5. CONTRACTUAL ARRANGEMENTS FOR MAINTENANCE/OVERHAUL. Attach copies of operations specifications or manual pages regarding contractual maintenance arrangements.

6. RELIABILITY PROGRAMS. Attach copies of operations specifications or manual pages regarding reliability programs.

Name and Signature of Preparer

District Office

FIGURE 2-2. REGIONAL NATI COORDINATOR SUMMARY

1. Air Carrier _____ Certificate No. _____

2. Executive Summary

   a. ODR attached, 1st page ☐
   b. ODR Supplemental Form attached, 2nd and 3rd pages ☐

3. Number of operations reports _____

4. Number of airworthiness reports _____

5. Total number of Phase I reports _____

6. Hours spent on operations inspections _____

7. Hours spent on airworthiness inspections _____

8. Total hours spent on Phase I inspections _____

9. A brief narrative of the method used to evaluate Phase I inspection reports. (IAW Appendix 2, paragraph 5.b.)

10. Conclusions reached:

11. Recommendations:

12. Copies of all reports appended ☐

_____	_____	_____
Name and Signature of Regional NATI	Date	Region

* This form when completed will constitute the 4th page of the summary.

* If space is limited use reverse of this page.

APPENDIX 3. OPERATIONS - TYPES, NUMBERS, AND METHODS OF PHASE I INSPECTIONS

1. STATION FACILITY INSPECTION.

a. Inspections will be made of those areas of the facility that are utilized by the flightcrews, cabin crews, and other operations personnel for the purpose of originating flights or turning around flights at intermediate stops. The areas utilized for passenger loading, cargo loading, weight and balance preparation, etc., should also be inspected. The scope of this inspection may range from a facility used by a large air carrier with a permanently assigned station manager and many employees and various departments; to a small commuter air carrier with one employee or agent at a facility that is shared by others. The modified FAA Form 8430-10 depicted in figure 3-1 of this appendix will be locally reproduced and used for recording these inspections. All the items contained on the modified form should be inspected and observations recorded. In the event an item is not applicable to a particular type of operation, an "N/A" will be entered in the comment column. If the item is satisfactory, enter a mark in the "SAT" column. If the item is unsatisfactory, or otherwise warrants comment, enter a mark in the "comment" column and provide an explanation of the observation or finding in the comment section of the modified form. Regions and District Offices will conduct station facility inspections throughout the regional area and avoid a concentration of station facility inspections on a hub airport. Regions and District Offices will plan the station facility inspections so as to avoid duplicate inspections of the same facility and same air carrier. However, if two or more air carriers share a common facility, separate inspection reports will be prepared for each air carrier utilizing the shared facility. The items on the report form will be inspected as they pertain to each air carrier using the facility.

b. The Phase I regional quota for station facility inspections is at least one station facility inspection for each air carrier that operates within the regional geographic area. In the event an air carrier operates solely within a single regional geographic area, at least two station facility inspections will be conducted on that air carrier.

2. RAMP INSPECTIONS.

a. The operations ramp inspections conducted in support of the NATI program will be directed at all air carriers. While ramp inspections can often be conducted at the same time and locations as station facility inspections, they are separate inspections and serve a different function. The station facility inspection looks at the ground facility area and the ground support provided to flight operations, whereas the ramp inspection looks at the crewmember preparedness for flight. Such items as the crewmember possession of appropriate airman certificates, manuals, enroute and approach charts, proper flight dispatch/release, flight plan, weather, weight and balance, flashlights, etc., will be inspected. Flight attendants will be checked for proper equipment, such as manuals and flashlights. The modified FAA Form 8430-15 depicted in figure 3-2 of this appendix will be locally reproduced and used for recording these inspections. All items contained on the modified form should be inspected. In the event an item is not applicable to a particular type of operation, an "N/A" will be entered in the comment column. If the item is satisfactory, enter a

mark in the "SAT" column. If the item is unsatisfactory, or otherwise warrants a comment, enter a mark in the comment column and provide an explanation of the observation or finding in the comment section of the modified form. Inspectors will, wherever possible, accompany the crew to the aircraft and inspect such items as cockpit checklist availability, manuals on board (if required), passenger briefing cards, lifevests, carry-on baggage stowage, etc. Inspectors will plan their inspection activities so as to avoid disruptions which could delay flights or inconvenience passengers. However, every effort will be made to accomplish all the items listed on the modified ramp inspection form.

b. The Phase I regional quota for ramp inspections is at least two ramp inspections for each air carrier that operates within the regional geographic area. If the air carrier departs from an airport located within the regional geographic area on a long-range transoceanic flight, at least one of the above ramp inspections will be conducted for that type of flight. In the eyent an air carrier operates solely within a single regional geographic area, at least two ramp inspections will be conducted on that air carrier.

3. ENROUTE INSPECTIONS.

a. Regions and District Offices will use prudent scheduling to maximize the benefits of enroute inspections. Long and time-consuming (e.g., trans-continental/international) enroute inspections will not be planned for the accomplishment of regional inspection quotas. Normally, enroute inspections that exceed 2 hours flight time should be avoided unless there is no other way to accomplish regional quotas. Inspectors will, whenever possible, conduct enroute inspections while traveling to accomplish other types of inspections in accordance with the NATI Phase I program. Commuter air carrier enroute inspections will be conducted on a "must fly" basis. Commuter air carriers will be advised of the "must fly" basis as far in advance as possible. If enroute inspections involve more than one leg with the same flightcrew, cabin enroute inspections should be accomplished on the alternate leg. The normal enroute forms, FAA Form 8430-5 and FAA Form 8430-16 will be used to record the enroute inspections. Each enroute inspection form should be clearly identified as NATI information. Figure 3-3 of this appendix depicts a "directed emphasis" supplemental form for the enroute inspection. The enroute supplemental form contains "directed emphasis" items which will be observed and commented on during each enroute inspection (both cockpit and cabin enroute inspections). The enroute inspection supplemental form will be locally reproduced and used to report on the "directed emphasis" items. It will be attached (stapled) to the basic enroute form and both completed forms distributed in accordance with this notice.

b. The Phase I regional quota for enroute inspections is at least two enroute inspections for each air carrier that operates within the regional geographic area. In addition, each District Office that holds a commuter air carrier certificate will conduct at least one enroute inspection on each type of aircraft used by that certificate holder in commuter operations.

4. RECORDS INSPECTIONS.

a. Records inspections conducted as part of the NATI Phase I program should be tailored to the size of a particular operator. During Phase I the objective is to determine the overall effectiveness of a specific recordkeeping function through a sampling of individual records. Inspector emphasis will be based on using as many sources as possible to establish that regulatory requirements are in fact being met and that the recording of these requirements is accurate. Records checks will be recorded on the locally-reproduced modified FAA Form 3112, depicted in figure 3-4 of this appendix. Separate reports will be accomplished for each location visited. Each form must provide a description of work accomplished, findings, and recommendations. If discrepancies are noted that may warrant followup action, every effort will be made to obtain copies of pertinent documents.

(1) Airman Records (e.g., pilot, flight engineer, fight attendant, dispatcher). A representative number of individual records (5 to 10 for pilots) will be randomly selected and reviewed in detail. Certificates, ground and flight training, flight and duty time, currency, airport qualifications, check airman authorizations, etc., are items that should be validated during this inspection. Specific items should be cross-referenced when possible. For example, training and flight checks accomplished in an aircraft should be cross-checked against flight and duty time records and flight logs, if available, for the date recorded to insure the accuracy of the information. The record of the check airman/instructors involved should also be cross-checked in the same manner to further verify the overall integrity of the recordkeeping system.

(2) Flight Records (e.g., dispatch release, flight plans, load manifests, etc.). Operator flight records will be reviewed as necessry to establish that the recordkeeping requirements of FAR Part 121/135 air carriers are being met. Emphasis should be placed on the means of compliance and determining that load manifests, dispatch releases, and other flight documents contain the required information.

b. The Phase I regional quota for records inspections is to complete one records inspection (airman and flight) on each air carrier that maintains such records at a location within the regional geographic area.

5. TRAINING FACILITY INSPECTIONS.

a. Inspections of facilities utilized by air carriers to train crewmembers will be conducted regardless of whether or not training is being accomplished at the time of the NATI Phase I inspections. The physical aspects of the facilities will be inspected. Classrooms, cockpit trainers, pictorial trainers/displays, systems mockups/diagrams, emergency evacuation trainers, emergency exit trainers, simulators, etc., that are used by the air carrier to train crewmembers will be inspected and reported on as to the adequacy of the classroom environment of the facility for learning. Inspectors will review the air carriers approved training program, if it is located at the facility being inspected. If ground training is being conducted at the time of the inspection, observations of such training will be made. Only relatively brief observations (2 to 4 hours) are necessary. Based on these observations, inspectors will

comment on the general conduct of the training and classroom atmosphere, the quality of the instruction being given, and the students reception to such instruction. Inspectors should verify attendance rosters of any ground instruction being given. If the instruction being given is in connection with "contract training" for another air carrier, comments should be made as to the effectiveness of the instruction for the other air carrier. If flight or simulator training (other than proficiency checking or certification) is being accomplished at the time of the inspection, observations for such training will be made. Inspectors will comment on the general conduct and quality of instruction being given during flight or simulator training. Inspectors will record their comments and findings on the FAA Form 3112 depicted in figure 3-5 of this appendix. The FAA Form 3112 in this figure will be locally reproduced and specifically used for training facility inspections conducted in accordance with Phase I of the NATI program.

b. The Phase I regional quota for training facility inspections is to complete at least one inspection on each air carrier that maintains, or contracts for, a training facility located within the regional geographic area.

FIGURE 3-1 (FRONT)

NATI AIR CARRIER STATION FACILITY REPORT OPERATIONS

1. NAME OF AIR CARRIER

2a. LOCATION

2b. DATE

3. AIRCRAFT USED AT THIS AIRPORT BY THIS OPERATOR

4. Facility/Services Leased From

5. AIRPORT OPERATOR

6. PERSONNEL		Sat	Comment
a. JOB TITLE	NUMBER		
b. FACILITY STAFFING			
c. TRAINING			
d.			
e.			
f.			
g. CURRENCY/ADEQUACY OF MANUALS			
h. PREPARATION OF LOAD MANIFESTS			
i. FACILITY ORGANIZATION EFFECTIVENESS			
j. EMERGENCY TELEPHONE LISTING			
k. SYSTEM FOR DISSEMINATING INFORMATION TO PERSONNEL			
l. EMERGENCY PLANS			
m.			
7. DISPATCH/FLIGHT RELEASE Info.			
a. DISPATCH/FLIGHT RELEASE/Locating			
b. DETERMINATION OF RUNWAY CONDITIONS			
c. NOTAM SUMMARY			
d. FLIGHT PLANNING			
e. WEIGHT/BALANCE/Load Manifest			
f. EQUIPMENT/SPACE			
g. COMMUNICATIONS			
h. EMERGENCY PROCEDURES			
i. HOURS OF OPERATION			
j. AIRPORT INSPECTION PROCEDURE			
k. Weather Reporting Facility/Sawrs			
l. Airport Analysis			
m. PROCEDURES FOR SUSPENDING/ RESTRICTING OPERATIONS, §§ 121.551, 121.553			

8. RAMP	Sat	Comment*
a. PUBLIC SAFETY RAMP/GATE		
b. AIRCRAFT LOADING AREA		
c.		
d.		
e. CONTROL OF RAMP VEHICLES		
f. SEVERE WEATHER PLAN		
g. CARGO LOADING		
h.		
i. FOD PROTECTION (Foreign object damage)		
j. RAMP/LIGHTING CONDITION		

Comments:

Time For This Inspection _____

Region	District Office	Inspectors Signature

* NOTE: Include in the Remarks Section (on the reverse side) Pertinent Data/Comments.

FAA Form 8430-10 (5-71) SUPERSEDES FAA FORM 3616

FIGURE 3-1 (BACK)

11. REMARKS: INCLUDE IN THIS SECTION COMMENTS ON ALL ITEMS RATED UNSATISFACTORY ALONG WITH CORRECTIVE ACTION TAKEN OR FOLLOW-UP ACTION TO BE TAKEN. *(Do not leave this section blank)*

NATI

GPO 912.049

FIGURE 3-2

NATI **RAMP INSPECTION REPORT**
OPERATIONS

Form Approved.
OMB No. 04-R0092

RAMP INSPECTION

NAME OF CARRIER	CERTIFICATE NO.	DATE OF INSPECTION
		PLACE OF INSPECTION

1. CREW	PILOT-IN-COMMAND	SECOND PILOT	
	OTHERS		
2. AIRCRAFT	MAKE AND MODEL	REG. MARK N	
3. TRIP	NO.	ESTIMATED FLIGHT TIME	FUEL ABOARD GALS. LBS.
	FROM	TO	VIA

4. DISPATCHING	SAT	Comment	7. MANUALS	SAT	Comment
TYPE OF CLEARANCE REQUIRED ☐ IFR ☐ VFR FILED ☐ IFR ☐ VFR			Operations Manual on Board (If Required)		
COMPLIANCE WITH FUEL REQUIREMENTS			Maintenance Manual on Board (If Required)		
PREPARATION OF FLIGHT MANIFEST					
METHOD OF OPERATIONAL CONTROL					
5. CREW INFORMATION			**8. AIRCRAFT**		
AIRMEN CERTIFICATES			COCKPIT CHECK LIST		
ON DUTY TIME			AIRCRAFT RECORDS		
FLIGHT TIME			Passenger Briefing Cards		
Pilot Flight Equipment Manuals/Charts/Flashlight			FIRST AID KITS, FIRE EXTINGUISHERS, etc.		
6. LOADING			EMERGENCY EXITS ACCESSIBLE		
PASSENGER CONTROL			SEATS AND SAFETY BELTS		
CARGO LOCATION			OVER WATER, EMERGENCY, AND EVACUATION EQUIPMENT		
Aircraft Gate Procedures			OTHER (Specify)		
Carry-on Luggage					

REMARKS (Attach supplemental sheet if necessary)

Time For This Inspection _____

REGION	DISTRICT OFFICE	INSPECTOR'S SIGNATURE

FAA Form 8430-15 (3-76) FORMERLY FAA FORM 1377-1

FIGURE 3-3. AIR CARRIER ENROUTE INSPECTION SUPPLEMENT

Name of Carrier _____ Flight No. _____ Date _____

COMMENTS:

1. Manuals, Charts, and Crewmember Equipment.

2. Aircraft Discrepancies/MEL Items.

3. Carry-on Baggage.

4. Departure/Approach Briefings - Flightcrew Coordination.

5. ATC Compliance - Altitude Awareness.

6. Sterile Cockpit.

7. Passenger Briefings, Briefings Cards (121 and 135).

Name of Inspector _____ Region _____ D.O. _____

Time spent on this inspection _____

NOTE: Comments are required for all items, except on cabin enroute inspections comments are not required for Items 4 and 5.

-NATI-

FIGURE 3-4

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS (Total)
Records Inspection - Operations		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS	7. FURTHER ACTION REQ.
		☐ SATISFACTORY	☐ NO
		☐ UNSATISFACTORY (Explain in Item 8)	☐ YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

A. Airman Records. (Brief description of method and comments on compliance)

Time spent on this inspection _____

B. Flight Records. Brief description on method and comments on compliance.

Time spent on this inspection _____

(If more space is required, use reverse side)

	OPERATIONS	DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
☐	MAINTENANCE			
☐	AVIONICS			

FAA Form 3112 (6-70)

★ U.S. GOVERNMENT PRINTING OFFICE 1982—571 368/313

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS (Total
Training Facility Inspection - Operations		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
		☐	SATISFACTORY	☐	NO
		☐	UNSATISFACTORY (Explain in Item 8)	☐	YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

A. Physical Facility. (Brief description of facility and comments)

B. Approved Training Program. ☐ SAT ☐ Comment

C. Ground Training Observations. (Comments)

D. Inspector's Aircraft Qualification _____ Time Spent _____

E. Attendance Records. ☐ SAT ☐ Comment

F. Flight or Simulator Training Observations. (Comments)

G. Inspector's Aircraft Qualification _____ Time Spent _____

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
☐	OPERATIONS			
☐	MAINTENANCE			
☐	AVIONICS			

FAA Form 3112 (8-70)

★ U.S. GOVERNMENT PRINTING OFFICE 1982-571 366/313

APPENDIX 4. AIRWORTHINESS

1. GENERAL. All Aviation Safety Inspectors (Airworthiness, GS-1825 series) are directed to comply with this notice when conducting inspections in accordance with the guidelines spelled out in Order 8000.49, District Office Geographic Area Responsibility Concept. The following inspections are to be conducted: Ramp Inspections, Spot Inspections, En Route Inspections, Maintenance Station Facility Inspections, Maintenance Training Inspections, Records Inspections, and Maintenance Manual Inspections. When conducting these inspections, the guidelines of Order 8320.12, Air Carrier Airworthiness Inspector's Handbook, are to be followed. Expanded instructions to supplement Order 8320.12 can be found in Order 8300.8A, Air Carrier Airworthiness Inspectors Job Function Reference Guide. Additional guidance is available in current notices and orders pertaining to surveillance and certification of air carriers and commuter operators.

2. AIRWORTHINESS - TYPES, NUMBERS, AND METHODS OF PHASE I INSPECTIONS.

a. Guidance on Reporting Inspections:

(1) All inspections are to be reported on FAA Form 3112. Regions and District Offices will locally reproduce and use the modified inspection forms contained in this Appendix for recording Phase I NATI inspection activity.

(2) A separate form is to be used for each inspection.

(3) Time expended on each inspection is to be entered on the form.

(4) A judgement is to be made by the inspector performing the inspection whether the inspection is "Satisfactory" or "Unsatisfactory," and the appropriate block checked on the form. Generally, if discrepancies are found, they are to be reported on the form and the "Unsatisfactory" block checked.

(5) Whenever on-the-spot corrective action is taken, so indicate on the form. If further action is required, check that block.

(6) The original of the form is to be expeditiously forwarded to the regional NATIC with certificate responsibility. A copy is to be forwarded to the District Office with certificate responsibility. A copy is to be retained in the reporting inspector's District Office.

b. Ramp Inspections - Figure 4-1.

(1) Ramp inspections are to be performed, when sufficient time is available to do a complete inspection, in accordance with Order 8320.12, Chapter 3, Section 17, with special emphasis on the following:

(a) Emergency equipment.

(b) Logbook for appropriate corrective action, repeat discrepancies, and MEL procedures.

(c) Lavatory fire hazards.

(d) Tire maintenance.

(e) Carry-over discrepancies.

(2) The quota for each region is as follows. At least one ramp inspection per air carrier per aircraft type operated.

c. <u>Spot Inspections - Figure 4-2.</u>

(1) Spot inspections are to be performed in accordance with Order 8320.12, Chapter 3, Section 1[illegible], with special emphasis on the following:

(a) Adherence to maintenance manual procedures.

(b) Use of correct forms properly signed off.

(c) Properly trained personnel.

(d) Use of special equipment and its calibration.

(e) RII procedures.

(f) Emergency equipment.

(2) The quota for each region is as follows. At least one spot inspection per air carrier per aircraft type operated where maintenance is being performed.

d. <u>En Route Inspections - Figure 4-3.</u>

(1) En route inspections are to be performed in accordance with Order 8320.12, Chapter 3, Section [illegible] and Chapter 9, Section [illegible], with special emphasis on the following:

(a) Flightcrew recording observed discrepancies in logbook.

(b) Flightcrew use of checklist, oxygen masks.

(c) Control of carry-on baggage.

(d) Logbook for appropriate corrective action (repeat discrepancies) and MEL procedures.

(e) Airworthiness release.

(2) The quota for each region [illegible] inspections [illegible] as necessary [illegible] inspections.

e. Maintenance Station Facility Inspections - Figure 4-4.

(1) Maintenance station facility inspections are to be performed in accordance with Order 8320.12, Chapter 3, Section 31, with special emphasis on the following:

(a) Spare parts and special equipment appropriate for the functions of the facility.

(b) Adequate number of trained personnel for the functions of the facility.

(c) Current manuals in use, sufficient copies.

(d) List of persons authorized RII, properly trained, and certificated.

(e) If contract maintenance facility, personnel trained, current manuals available for contracting operator.

(f) Calibration of test equipment and special equipment.

(2) The quota for each region is as follows: Perform maintenance facility inspections at all stations where scheduled aircraft maintenance is performed.

f. Maintenance Training Inspections - Figure 4-5.

(1) Maintenance training inspections are to be performed in accordance with Order 8320.12, Chapter 3, Section 33, with special emphasis on the following:

(a) Adequate number of persons trained.

(b) All personnel making airworthiness determinations trained.

(c) Training in accordance with maintenance manual requirements.

(d) Specialized training; e.g., nondestructive inspection, aircraft run-up, and taxi.

(e) Line station personnel trained.

(f) Current maintenance training records.

(2) The quota for each region is as follows: Perform a maintenance training inspection at each main maintenance base inspected.

g. Records Inspections - Figure 4-6.

(1) Maintenance records inspections are to be performed at all locations where permanent or historical records are maintained, with special emphasis on the following

(a) Airworthiness directive compliance.

(b) Deferred maintenance.

(c) Adherence to time limitations in operations specifications.

(d) Logbooks for MEL items, trends, appropriate corrective actions, proper airworthiness releases, sign-off for work done.

(e) Proper RII sign-off.

(2) The quota for each region is as follows: Perform a records inspection at each maintenance station facility where records are maintained on a sample basis of at least one aircraft of each type operated. The time frame for each type of record inspected is left to the judgement of the reporting inspector.

h. Maintenance Manual Inspections - Figure 4-7:

(1) Operators' maintenance manual inspections are to be performed at the main base of each air carrier, BY INSPECTORS OTHER THAN THOSE ASSIGNED TO THE AIR CARRIER, in accordance with Order 8320.12, Chapter 3, Section 4, with special emphasis on the following:

(a) Continuing analysis and surveillance program.

(b) Correct maintenance program for the size, capacity, and type aircraft being operated.

(c) Contract maintenance arrangements.

(d) Separation of responsibility for maintenance production and quality control.

(2) The quota for each region is as follows: Perform a maintenance manual inspection at the main maintenance base of each air carrier.

FIGURE 4-1

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Ramp Inspection - Maintenance		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Emergency equipment.

2. Logbook for appropriate corrective action, repeat discrepancies, and MEL procedures.

3. Lavatory fire hazards.

4. Tire maintenance.

5. Carry-over discrepancies.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
	OPERATIONS			
	MAINTENANCE			
	AVIONICS			

FAA Form 3112 (8-70)

U.S. GOVERNMENT PRINTING OFFICE 1982—371-388/313

FIGURE 4-2

NATI

INSPECTION AND SURVEILLANCE RECORD

NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Spot Inspection		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Adh[illegible]ce to maintenance manual procedures.

2. Use of correct forms properly signed off.

3. Properly trained personnel.

4. Use of special equipment and its calibration.

5. RII procedures.

6. Emergency equipment.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
	OPERATIONS			
	MAINTENANCE			
	AVIONICS			

FAA Form 3112 [illegible]

NATI

U.S. GOVERNMENT PRINTING OFFICE [illegible]

FIGURE 4-3

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
En Route Inspection - Maintenance		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Flightcrew recording observed discrepancies in logbook.

2. Flightcrew use of checklist, oxygen masks.

3. Control of carry-on baggage.

4. Logbook for appropriate corrective action, repeat discrepancies, and MEL procedures.

5. Airworthiness release.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
	OPERATIONS			
	MAINTENANCE			
	AVIONICS			

FAA Form 3112 (8-70) NATI ★ U.S. GOVERNMENT PRINTING OFFICE (1982 - 377-388/313)

FIGURE 4-4

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Maintenance Station Facility Inspection		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS	7. FURTHER ACTION REQ.
		☐ SATISFACTORY	☐ NO
		☐ UNSATISFACTORY (Explain in Item 8)	☐ YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Spare parts and special equipment appropriate for the functions of the facility.

2. Adequate number of trained personnel for the functions of the facility.

3. Current manuals in use, sufficient copies.

4. List of persons authorized RII, properly trained and certificated.

5. If contract maintenance facility, personnel trained, current manuals available for contracting operator.

6. Calibration of test equipment and special equipment.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
☐	OPERATIONS			
☐	MAINTENANCE			
☐	AVIONICS			

FAA Form 3112 8-70

☆ U.S. GOVERNMENT PRINTING OFFICE 1982—371 [illegible]

FIGURE 4-5

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Maintenance Training Inspection		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Adequate number of persons trained.

2. All personnel making airworthiness determinations trained.

3. Training in accordance with maintenance manual requirements.

4. Specialized training; e.g., nondestructive inspection, aircraft run-up, and taxi.

5. Line station personnel trained.

6. Current maintenance training records.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
	OPERATIONS			
	MAINTENANCE			
	AVIONICS			

FAA Form 3112 (8-70)

★ U.S. GOVERNMENT PRINTING OFFICE: 1982—371-388/313

FIGURE 4-6

NATI

INSPECTION AND SURVEILLANCE RECORD

NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Records Inspection - Maintenance		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Airworthiness Directive compliance.

2. Deferred maintenance.

3. Adherence to time limitations in operations specifications.

4. Logbooks for MEL items, trends, appropriate corrective actions, proper airworthiness releases, sign-off for work done.

5. Proper RII sign-off.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

☐ OPERATIONS ☐ MAINTENANCE ☐ AVIONICS	DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE

FAA Form 3112 (8-70)

★ U.S. GOVERNMENT PRINTING OFFICE 1982—571-368/313

FIGURE 4-7

NATI **INSPECTION AND SURVEILLANCE RECORD** NATI

1. WORK ACTIVITY	2. UNITS	3. HOURS
Maintenance Manual Inspection		

4. NAME AND ADDRESS OF CARRIER, OPERATOR, AIRPORT, AGENCY, OR AIRMAN	5. CERTIFICATE NO. OR AIRCRAFT REGISTRATION MARK (No.)	6. RESULTS		7. FURTHER ACTION REQ.	
			SATISFACTORY		NO
			UNSATISFACTORY (Explain in Item 8)		YES (Explain action in Item 8)

8. FINDINGS/RECOMMENDATIONS

The following special emphasis items are to be covered in addition to the normal inspection:

1. Continuing analysis and surveillance program.

2. Correct maintenance program for the size, capacity, and type aircraft being operated.

3. Contract maintenance arrangements.

4. Separation of responsibility for maintenance production and quality control.

RECORD ADDITIONAL INSPECTION FINDINGS ON THE REVERSE SIDE.

(If more space is required, use reverse side)

		DATE	REGION AND DISTRICT OFFICE	INSPECTOR'S SIGNATURE
	OPERATIONS			
	MAINTENANCE			
	AVIONICS			

FAA Form 3112 (8-70)

☆ U.S. GOVERNMENT PRINTING OFFICE: 1982—571-368/313

APPENDIX 5. NATIONAL AIR TRANSPORTATION INSPECTION - PHASE II INSPECTIONS

1. BACKGROUND. Phase II inspections will be directed by the Headquarters NATIC based upon the reports generated by the inspections conducted during Phase I. The inspections can be initiated at any time after Phase I commences.

2. DISCUSSION.

a. The Phase II inspection team members will be selected by the Headquarters NATIC from resources identified by Regional NATIC's. Inspection teams may be staffed from several regions, or may be staffed from a single region.

b. The size and composition of the team will be at the discretion of the Headquarters NATIC.

c. The scope of the inspection required will determine the duration. Specific operations and airworthiness areas requiring special emphasis will be directed by the Headquarters NATIC in coordination with the inspection team leader.

d. Funding and logistic support for the inspection team will be the responsibility of the region having certificate responsibility for the carrier involved, or as directed by the Headquarters NATIC. In special cases, the Headquarters NATIC may direct the travel funding be provided by the parent region of each NATI team member. Logistic support (e.g., typing, government vehicle or aircraft transportation, special equipment, etc.) will, however, continue to be provided by the certificate-holding region.

e. Coordination with the air carrier concerning preinspection details will be the responsibility of the Regional NATIC of the certificate-holding Region.

3. CONDUCT OF THE PHASE II INSPECTION.

a. The certificate-holding Regional NATIC will brief the inspection team prior to initiation of the Phase II inspection. The briefing will include, but not be limited to, special emphasis areas, administrative and transportation arrangements, the results of all preinspection coordination with the air carrier, and the availability of all records pertaining to the air carrier to be inspected. The assigned principal inspectors also must be available for coordination during the conduct of the inspection.

b. The inspection team leader will be responsible for delegating specific assignments among the team members so as to ensure that a complete and comprehensive evaluation is conducted.

c. Prior to commencing the inspection activity, a formal briefing will be conducted at the air carrier facility, for the air carriers management representatives. The briefing will provide an opportunity to introduce the inspection team, outline the scope of the inspection, discuss problem areas, and complete administrative details (e.g., security badges, parking stickers, etc.)

d. During the inspection process, every attempt will be made to validate inspection findings through a comprehensive review of all interrelated areas, within the carrier's organizational structure. This includes indepth analysis and cross-referencing to identify the source and associated factors of a particular discrepancy or finding. Documentation in support of all findings must be obtained.

e. Coordination between the inspection team leader and the Regional NATIC will be maintained concerning the progress of the inspection. Significant findings which would present a serious compromise of aviation safety will immediately be brought to the attention of the Headquarters NATIC, by the Regional NATIC.

f. Investigation and processing of enforcement actions resulting from Phase II inspection findings will be the responsibility of the certificate-holding District Office.

4. REPORTING.

a. The inspection team leader will be responsible for preparing and submitting a final inspection report. Each inspection team member will provide a report of their respective inspection areas, in accordance with subparagraph b(2) below to the team leader.

b. The format for the report will be as follows:

(1) Preface.

(2) Inspection areas. Each inspection area will be addressed to include observations, conclusions, and recommendations in a narrative form with supporting documentation attached.

(3) Overall recommendations.

(4) Appendices, if required.

c. A copy of the report will be submitted to the Regional NATIC and the Headquarters NATIC. Team leaders may be required to brief the Headquarters NATIC prior to completion of the reports.

d. District Office followup action will be coordinated with the Regional NATIC, who will be required to submit a final followup report detailing the closeout of corrective actions.

APPENDIX B

NATI PROGRAM SCHEDULE OF EVENTS

The following Table illustrates the planned schedule of events and the actual accomplishments of these as they occurred during the course of the NATI Program.

TABLE B-1

EVENT	PLANNED	ACTUAL
Plan and develop NATI Directive.	Feb 14-26	Feb 14-26
Brief Regional NATICs.	Feb 27	Feb 27
Finalize Directive (N8000.246), Regional NATICs brief District Offices and distribute Directive and Phase I forms.	Feb 28-Mar 3	Feb 28-Mar 3
Phase I inspections.	Mar 4-24	Mar 4-24
Regional NATICs review of Phase I reports and preparation of oral summaries on each air carrier.	Mar 25-29	Mar 25-Apr 1
Regional NATICs brief Hdq. NATI Program Office and decide on Phase II activity.	Mar 30-31	Apr 2-4
Phase II activity (both types).	Apr 1-May 30	Apr 5-June 5

NOTE: The planned schedule of events was delayed approximately five days to provide for additional time to analyze and evaluate the Phase I inspection data. While Phase I was underway, it was decided to initiate Phase II in-depth inspections on six air carriers. These decisions were based on early evaluation of inspection report data during Phase I. Therefore, Phase II type of inspection activity actually started on March 13, 1984.

APPENDIX C

NATI PROGRAM ORGANIZATIONAL STRUCTURE

The NATI Program was developed, organized, and implemented by FAA Headquarters, Washington, D.C. The program was directed and coordinated from Headquarters, through a [illegible] Program Manager and two NATI coordinators, representing the respective air transportation sections of the Office of Flight Operations and the Office of Airworthiness.

Each of the FAA's nine Regional Flight Standards Division Managers appointed a qualified Regional NATI coordinator to act on his behalf (designated Regional NATIC). The Regional NATICs were either the Assistant Regional Flight Standards Division Manager, or a temporarily detailed, highly qualified inspector experienced in Part 121 air carrier and/or Part 135 commuter air carrier operations. The Regional NATICs reported to and coordinated with the Headquarters NATI Program Office on all matters pertaining to the program's national effort.

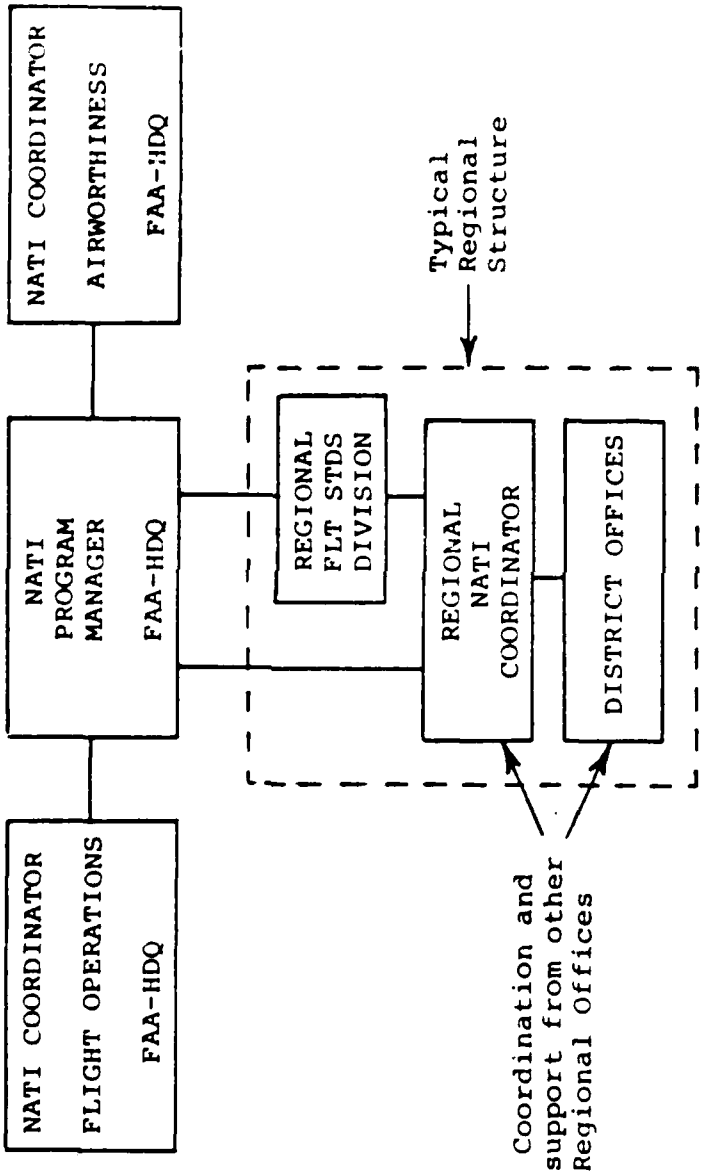
The Regional NATICs were responsible for directing and coordinating all inspection activities conducted within their region. They acted as the focal point for the collection, collation, and evaluation of all reports of inspections conducted on each air carrier certificated within their respective region which provided a data base for each assigned air carrier certificated. In addition, each Regional NATIC was required to prepare oral summaries of the safety compliance posture for the [illegible] with certificates held by their region. [illegible] were detected during [illegible]

[illegible]

[illegible] participating [illegible] inspectors [illegible] NATI [illegible] routine [illegible]. The [illegible] current inspections of air carrier [illegible] the responsibility [illegible] any air carrier that operates [illegible] responsibility. District Offices were [illegible] for assuring the forwarding of inspection reports [illegible] appropriate Regional NATI, and for assuring that corrective action was taken on detected deficiencies. They reported [illegible] coordinated with their respective Regional NATI on all matters pertaining to the NATI program.

Table C-1

NATI ORGANIZATION



APPENDIX D

APPROACH

The following discussion provides a summary of the methodology used in the planning and execution of both phases of the NATI program.

The early planning phase identified the following basic considerations for the program.

1) Inspections were required to be accomplished on all air carriers.

2) In-depth inspections or surveys are costly to both the air carriers and the FAA. Therefore, decisions to conduct in-depth inspections or surveys would have to be carefully justified. In addition, this consideration was necessary to preclude arbitrariness.

3) In order to effectively direct resources and effort, a data base of sufficient size to provide a reasonable analytical confidence in the decision making process would be required.

4) The program would be constrained by time (90-days), the available qualified inspector work force, and the continuing need to accomplish other types of day-to-day demand work during the NATI program.

The types of inspections selected for use in the NATI program are designed to minimize disruption to the air carriers and the traveling public.

Phase I

The Phase I inspections were conducted around the clock and on weekends to avoid a concentration of inspection activity during air carrier peak activity. Only two complaints about delays in flight schedules initially attributed to NATI inspection were received, and upon investigating the complaints, it was learned that the delays were caused by the time it took to resolve deficiencies detected during the inspections.

A specific quota of inspections was formulated to avoid an excessive concentration and duplication of inspections on any one air carrier or locale while also providing for a minimum number of inspections on each air carrier. The number of inspections conducted increased proportionately with the number of different types of aircraft operated and the number of different FAA regions into which the air carrier operated. Under this quota scheme, at least 16 inspections were required to be conducted on the smallest and least complicated air carriers and at least 120 inspections were required on the larger and more complicated air carriers. Table D-1 presents the total number of inspections, by type, that were required by the quota and the number completed on a nationwide basis. Table D-1 also provides the total manhours spent on the inspection function alone, not including time spent on travel to and from the inspection site or time spent on report writing and distribution. Table D-2 provides similar information graphically.

Table D-1

NATI PHASE I INSPECTION SUMMARY

ALL AIR CARRIERS NATIONWIDE

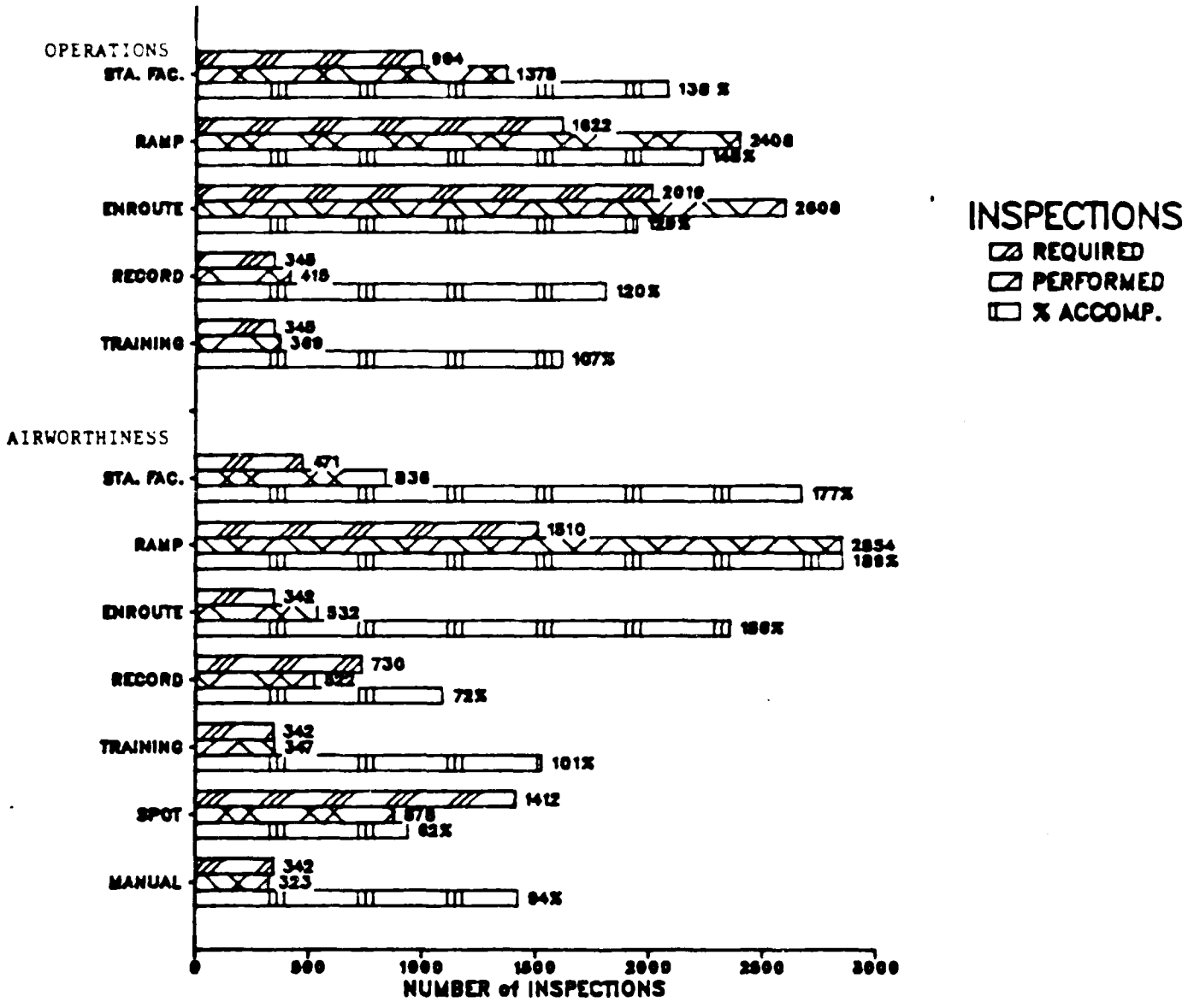
PERCENT OF QUOTA COMPLETED AND MANHOURS EXPENDED

TYPE OF INSPECTION	OPERATIONS INSPECTIONS				AIRWORTHINESS INSPECTIONS			
	REQ'D. BY QUOTA	NO. PERF'D.	% ACCOMP.	TOTAL MANHRS.	REQ'D. BY QUOTA	NO. PERF'D.	% ACCOMP.	TOTAL MANHRS.
STA. FAC.	994	1375	138%	1899	471	836	177%	2373
RAMP	1622	2408	148%	1782	1510	2854	189%	2496
ENROUTE	2019	2608	129%	6231	342	532	156%	997
RECORD	345	415	120%	1311	730	522	72%	1444
TRAINING	345	369	107%	987	342	347	101%	718
SPOT					1412	878	62%	1335
MANUAL					342	323	94%	1252
TOTALS	5,325	7,175	135%	12,210	5,050	6,292	124%	10,615

Total Operations & Airworthiness Inspections Required By Quota...10,375
Total Operations & Airworthiness Inspections Actually Performed..13,467
Overall Percent Accomplished.....130%
Total Manhours Expended on Phase I Inspection Function.....22,825

Table D-2

NATI PHASE 1 INSPECTION SUMMARY
ALL AIR CARRIER NATIONWIDE
PERCENT OF QUOTA COMPLETED



Twelve different types of inspections were employed during Phase I of the NAII test because it was believed they would most effectively provide the needed indicators of air carrier compliance and the safety of the air transportation system. These types of inspections are the end product of methods and systems established to assure compliance with regulations, standards, company manuals, policy and good, safe operating practices. Standardized forms specifically identified as NAII forms were utilized. They contained overprinted "directed emphasis" items to focus inspector attention on specific areas to be inspected on a nationwide basis. The twelve different types of inspections and the directed emphasis items are described below. Included at the end of each inspection type is an estimate of the average number of individual items or systems examined during each of the inspections.

1. OPERATIONS INSPECTIONS: (five different types)

   a. Station Facility Inspection. This inspection examines the facilities that are used by the flight crews, cabin crews, and other operations personnel for the purpose of originating flights or turning flights around at intermediate stops. The scope of this inspection may range from a facility used by a large air carrier with a permanently assigned station manager, many employees and various departments, to a small commuter air carrier with one employee or agent at a facility that is shared by others. Examples of items inspected include:

- o Personnel and Equipment: Staffing, organization, training, currency and availability of manuals, emergency plans and telephone listings, systems for dissemination of information, etc.
- o Dispatch/Flight Control: Procedures for dispatch, flight release or flight locating, airport analysis, runway and taxi conditions, Notices to Airmen (NOTAMS) and weather information, load manifest preparation, flight planning, procedures for suspending or restricting operations, etc.
- o Ramp Area: Public safety, control at ramp/gate, aircraft loading area, cargo loading, ramp and lighting conditions, severe weather plans, etc.
- o Estimated Number of Items Examined: 35

b) Ramp Inspection: The ramp inspection is often conducted at the same time and location as the station facility inspection. However, they are separate inspections and serve different functions. The ramp inspection examines preparedness for flight. Examples of items inspected include:

- o Crew Equipment and Information: Possession of airmen certificates, manuals, enroute and approach charts, proper flight dispatch/release, flight plan, load manifest, weather, NOTAMS, compliance with fuel requirements, flight and duty time, currency and qualifications, etc.

- o Aircraft: Cockpit checklist, records, passenger briefing cards, first-aid kits, emergency equipment, seats and safety belts, carry-on luggage, aircraft loading, etc.
- o Estimated Number of Items Examined: 30

c) Enroute Inspection: The enroute inspection examines the flight and cabin crewmember proficiency in the conduct of all aspects of a flight. It also looks at the support and operational control provided by the air carrier during the entire flight operation. Examples of items inspected include:

- o Preflight and Departure: Weather analysis, flight planning, fuel planning, aircraft logbook, starting and taxi, compliance with aircraft structural and performance requirements, aircraft limitations, compliance with air traffic control (ATC) clearance, etc.
- o Enroute: Use of airborne systems, radar, navigation aids, flight following, holding procedures, climb and descent procedurs, ATC compliance, etc.
- o Approach and Landing: Proper aircraft configuration, compliance with structural and performance criteria, aircraft limitations, speed control, compliance with approach procedure, etc.

- o Flight and Cabin Crew: Proper certificates, manuals, charts, coordination, flight management, use of checklist, proficiency, knowledge, vigilance, judgment, etc.
- o Other Items: Runways, taxiways, public protection, refueling, ground personnel, etc.
- o Directed Emphasis Items:
  - --Manuals, charts, and crewmember equipment.
  - --Aircraft deficiencies/Minimum Equipment List (MEL) items.
  - --Flight crew coordination.
  - --ATC compliance and altitude awareness.
  - --Sterile cockpit.
  - --Passenger briefings and cards.
- o Estimated number of Items Examined: 80

d) Records Inspection: This inspection looks at the records air carriers are required to maintain in order to show compliance with the training, qualification, and operational control regulations. It examines the air carriers method of record keeping and quality control procedures. Examples of items inspected include:

- o Airmen Records: (e.g., pilot, flight engineer, flight attendant, dispatcher). Training, qualification, currency, medical, flight and duty time, airport qualification, check airmen authorization, etc.

- o Flight Records: (e.g., dispatch/release, load manifest, flight plans, weather). Compliance with regulations, accuracy, completeness, etc.
- o Estimated Number of Items Examined: 75

e) Training Facility Inspection: This inspection examines the facilities utilized by the air carrier to train flight and cabin crewmembers, and dispatchers, as well as the general conduct and quality of the training given. Examples of items inspected include:

- o Physical Facility: Classrooms, cockpit trainers, pictorial trainers/displays, aircraft systems mockups, emergency exit trainers, simulators, adequacy of facility environment for learning, etc.
- o Approved Training Program: Training conducted in accordance with approved curriculum and programmed hours, etc.
- o Ground and Flight Training: Quality of instruction, student reception of instruction, attendance rosters, logbook records, effectiveness of the training, etc.
- o Estimated Number of Items Examined: 30

2) AIRWORTHINESS INSPECTIONS: (seven different types)

a) Station Facility Inspection: This inspection examines the availability of adequate housing, equipment, spare parts, technical information, and qualified personnel. If Required Inspections (RII)

are to be performed, a determination of inspector's qualification and training must also be made. This inspection is accomplished at any base, terminal, or intermediate stop along the route flown by an operator at which maintenance is to be performed. Examples of items inspected include:

- o Adequate Housing: Type of building, heating, lighting, electrical, and compressed air outlets, etc.
- o Equipment: Adequacy of specialized maintenance tools and servicing equipment, etc.
- o Spare Parts: Sufficient spare parts, storage, handling, and protection of spare parts, etc.
- o Technical Information: Company and technical manuals available for mechanics use, etc.
- o Qualified Personnel: Maintenance and inspection personnel trained and authorized for the depth of work performed. In the case of required inspections, a list of properly trained, qualified, and authorized personnel to perform such inspections, etc.
- o Servicing: Adequate instructions pertaining to storage, handling, and dispensing of fuel oil, deicing fluid, etc.
- o Estimated Number of Items Examined: 25

b) Ramp Inspection: This inspection examines inservice aircraft in an operational environment. The purpose is to determine the maintenance of the aircraft by

direct inspection, rather than by evaluation of inprogress maintenance. It includes observations of refueling, passenger handling, and ground equipment. Examples of items inspected include:

- o Maintenance Manual: Onboard if required, current revisions, etc.
- o Aircraft Logbooks: Pilot complaints, correction of service difficulties, carryover items and inspection time limits, etc.
- o Exterior: Fuselage, wings, control surfaces, wheels and tires, landing gear, and systems, etc.
- o Interior: Seats, seatbelts, placards, signs, and emergency equipment, etc.
- o Estimated Number of Items Examined: 80

c) Enroute Inspection: This inspection is accomplished in conjunction with other job functions and is a useful tool in the assessment of an operators total airworthiness program. Examples of items inspected include:

- o Predeparture Check of Aircraft: [illegible] check for security and general [illegible] aircraft, etc.
- o Enroute: All aircraft [illegible] operation, etc.
- o Line Maintenance [illegible]

AD-A186 235 NATIONAL AIR TRANSPORTATION INSPECTION PROGRAM FEDERAL AVIATION ADMINISTRATION MARCH 4 - JUNE 5 1984(U) FEDERAL AVIATION ADMINISTRATION WASHINGTON DC 1984 2/3

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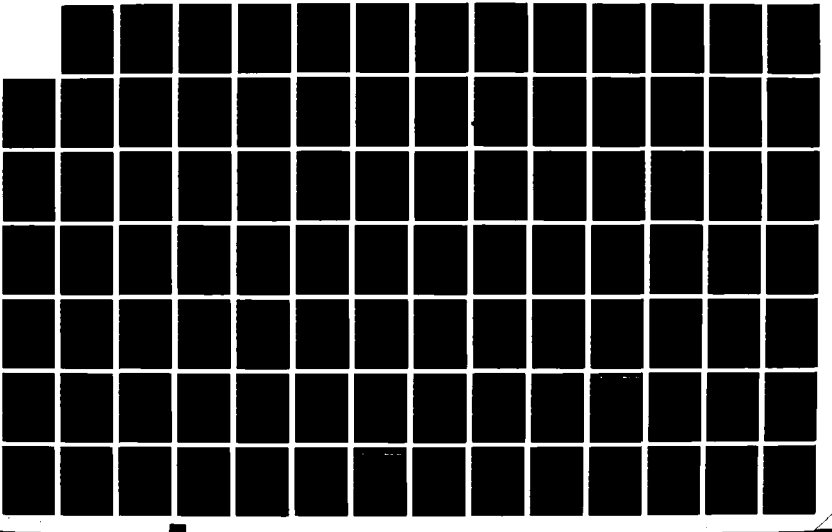

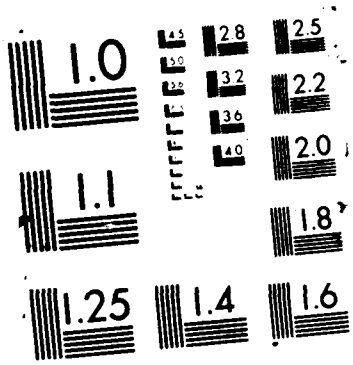
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marshalling, passenger safety precautions, line maintenance functions, etc.

- o Refueling of Aircraft: Trucks or pits for proper identification, grounding of equipment, fuel pressures, filter replacement dates, sump checks, etc.
- o Maintenance Logbooks: Open, repeat, and trend items, deferred and MEL items, maintenance release, etc.
- o Directed Emphasis Items:
  - --Flightcrew recording observed discrepancies in logbook.
  - --Flight crew use of checklist, oxygen mask.
  - --Control of carry-on baggage.
  - --Logbook for appropriate corrective action, repeat discrepancies, and MEL use.
  - --Airworthiness release.
- o Estimated Number of Items Examined: 85

d) Records Inspection: This inspection examine permanent and historical records to include aircraft logbooks, major repair and alteration reports, airworthiness compliance, and life limited parts control and approval data. Examples of items inspected include:

- o Aircraft Logbooks: Trends or repeat write-ups etc.

- o Historical Records: RII items, engine monitoring, airworthiness release, Airworthiness Directive (AD) compliance, time limitations and approval data, etc.
- o Estimated Number of Items Examined: 15

e) Training Inspections: This inspection determines if the maintenance and inspection personnel training program is sufficient to insure that aircraft are maintained at a high level of airworthiness. Training is dependent on the complexity of the aircraft. Examples of items inspected include:

- o Technical Training: Sufficient mechanics/inspectors trained. Training accomplished throughout an operators system is of equal quality and effectiveness, etc.
- o Policy and Procedures: Procedures and techniques taught are being utilized during inservice performance of maintenance and inspection durties, etc.
- o Required Inspection Training: RII personnel properly trained in those maintenance items designated as required items, etc.
- o Training Records: Records show compliance with operator's training program, etc.
- o Estimated Number of Items Examined: 25

f) Spot Inspection: This inspection examines in-progress maintenance operations for overall quality, conformity to the operator's inspection or

maintenance programs. Examples of items inspected include:

- o Manuals: Availability of and compliance with the policies, procedures, and practices published in the operator's manuals or other technical material applicable to the work in progress, etc.
- o Facilities and Personnel: Adequacy of facilities and competency of personnel, etc.
- o Equipment: Currency of test equipment calibration and support equipment, etc.
- o Competency of Personnel: Good maintenance practices, execution of paperwork etc.
- o Estimated Number of Items Examined: 90

g) Maintenance Manual: This inspection assures the operators maintenance manual provides policies, procedures, and technical criteria in sufficient detail. Special emphasis is placed on items that pertain to methods, techniques and practices for the accomplishment of all maintenance, repair and alterations. Examples of items inspected include:

- o Policies and Administrative Procedures: Description of the organization, list of persons with whom the air carrier arranges for the performance of maintenance, etc.
- o Time Limits and Controls: Methods for determining time limitations etc.

- o Reliability Programs: Program approvals, criteria for revisions, etc.
- o Manufacturer's Technical Manual: Availability and compatibility with the operator's manual, etc.
- o Servicing: Appropriate procedures for servicing fuel, o81, and deicer fluid, etc.
- o Estimated Number of Items Examined: 15

All Phase I inspection reports were collected and forwarded to the Headquarters NATI Program Office for analysis. Six retired FAA inspectors (designated Task Force #1) analyzed and evaluated each of the Phase I inspection reports. Task Force #1, consisting of three former operations inspectors and three former airworthiness inspectors, developed a standard form to record the results of their review and analysis. The form was designed, to enhance the review/analysis process, to facilitate computer entry and subsequent computer sorting and output presentations. The task force also developed a Master Phrase Look-Up List, which contains standard key word phrases. This list enabled the task force to extract field inspector comments from inspection reports for computer entry and storage. The list provides for both positive and adverse comments.

To enhance the objectivity of the review/analysis process, the task force established common criteria or "ground rules" that were stringently applied during the review/analysis of each Phase I inspection report. In addition, the task force used as an overall "ground rule" that only the information recorded on each individual inspection report and that information alone would be

considered in the analysis of each report. This "ground rule" was employed to further enhance objectivity by attempting to preclude overlap, of subjective opinion, that tend to develop from review, of numerous reports on the same air carriers.

Phase II

The second phase of the NATI program provided for the conduct of in-depth inspections of selected air carriers, and for the study of six broad issues by special purpose teams. To plan this second phase, the Regional NATICs and the Headquarters NATI Program Office met in a 3-day conference to analyze and evaluate the collective data base. During the conference, decisions were made concerning the direction of resources and effort for the balance of the NATI program (sixty days). Examples of the results of that conference are:

1) The number of in-depth inspections to be conducted, considering the available time and inspector resources without significantly impacting other demand work;

2) The air carriers to receive in-depth inspection;

3) The inspector specialty requirements, the number of inspectors and the estimated duration required for each in-depth inspection;

4) Scheduling priorities; and,

5) The selection of areas or segments of industry where common problems were indicated, and the inspector specialty requirements and size of special purpose teams to conduct in-depth reviews of these apparent problem areas.

It should be noted that the selection of an air carrier for an in-depth inspection was not based solely on a serious safety problem revealed by Phase I inspections. The results of Phase I, if they showed indications of potentially important problems, coupled with several other considerations, some of which are listed above, were used for the Phase II selections.

The in-depth inspections of Phase II look at the methods and systems employed by the air carrier to assure compliance with regulations, standards, and good/safe operating practices. These inspections review company policies, procedures, and programs. Every attempt is made to validate findings of deficiencies through a comprehensive review of all interrelated areas within the organizational structure. In depth analysis and cross referencing identify the source and associated factors of a particular deficiency. Documentation to substantiate all findings of deficiencies is obtained. The inspection team meets with management and conducts in/out briefings. A written report is prepared which normally includes the areas inspected, observations, conclusions, and recommendations.

The scope of the in-depth inspections was controlled in several different ways. In general, it was based on the evaluation of the Phase I inspection data. In some cases, the inspection teams were directed to inspect every safety related aspect of the air carrier's entire system. In other cases, the teams were directed to inspect certain limited areas within the air carrier's system, with the understanding to broaden the scope and request additional support, if necessary.

The teams varied in composition of specialty and size based on the perceived need. For example, one team consisted of eleven inspectors comprising five different specialties. It looked at the air carrier's entire system, expending over 176 mandays. Another team consisted of two inspectors having the same specialty. It looked at the crew qualification and operational control areas of the air carrier, expending sixteen mandays.

Phase II in-depth inspections teams were given a standard briefing by one of the Headquarters NATI Coordinators. The teams received standard briefing packages, which included copies of all the Phase I inspection reports that had already been accomplished on the subject air carrier. They were also instructed as to the scope of the inspection to be conducted. A principal inspector assigned to the air carrier attended these briefings and provided the team with additional information about the air carrier.

Phase II also consisted of special team surveys. During the analysis and evaluation of Phase I inspection data, a number of issues were identified as real or potential problems having an impact throughout the air transportation system. Consequently, it was decided to form special purpose teams to examine more closely six of these issues as described below:

1) CONTRACT/PIGGYBACK TRAINING: The regulations require each air carrier to develop and maintain an approved training program for its crewmembers. Recently, air carriers are, in increasing numbers, contracting with other organizations for training facilities instructors and check airmen. In some cases, air carriers adopt the other organization's training program.

Areas of concern include: quality and effectiveness, compatibility and applicability, record keeping and compliance, equipment and program approvals, control and surveillance, etc.

2) CONTINUING CONTRACTUAL OR INFORMAL SUBSERVICE ARRANGEMENTS: These situations involve arrangements wherein an air carrier contracts or informally agrees to provide air transportation for another air carrier's or organization's customers. Areas of concern include: operational and airworthiness control, holding out and organizational identification, rule applicability, deceptive practices, etc.

3) CONTRACT STATION FACILITY SERVICE TO AIR CARRIERS: The regulations require each air carrier to maintain adequate facilities to support its operations. Increasing numbers of air carriers are contracting for these required facilities from other air carriers or organizations. Areas of concern include: appropriate and applicable station manuals, procedures, dissemination of critical flight information, personnel training, emergency procedures, public protection, etc.

4) EFFECTIVENESS OF AIR CARRIER MAINTENANCE/AVIONICS CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAMS: The regulations require each air carrier to perform maintenance in accordance with its approved maintenance program. In addition, an air carrier may adopt all or part of another operator's programs. Increasing numbers of air carriers are contracting for a maintenance program from another operator. Areas of concern include: applicability of organizational size, aircraft type and type of operational environment, and capabilities, etc.

5) MEL/DEFERRED ITEMS: The regulation provides for the development and approval of an aircraft Minimum Equipment List (MEL), which permits the deferment of repair of certain inoperative but redundant equipment or systems in accordance with specified conditions. Areas of concern include: adequacy of training and guidance material, applicability of MEL and company procedures to type of operation and route structure, enforcement, deceptive practices, etc.

6) EMERGENCY EQUIPMENT AND CARRY-ON BAGGAGE: This issue involves the upkeep of onboard aircraft emergency equipment and the control and handling of carry-on baggage. Areas of concern include: condition and inspection of slides/rafts/vests/fire bottles/masks, adequacy of procedures for control of carry-on baggage, interference of carry-on baggage with emergency equipment, commissary, trash storage, flight attendant procedures, enforcement of rules, etc.

Phase II in-depth inspections involved a considerable amount of time on the part of air carrier management. Normally, in-depth inspections and any ensuing corrective actions do not generally affect ongoing air carrier operational activity in a manner that results in an inconvenience to the traveling public. The operational activity of 16 air carriers was significantly affected by the NATI program. In these cases, there simply was no other recourse and some inconvenience to the traveling public may have occurred. Table D-3 summarizes the actions taken at these 16 carriers.

AIR CARRIER OPERATIONS SIGNIFICANTLY IMPACTED

BY THE NATI PROGRAM

OPERATIONS SUSPENDED OR CURTAILED OR CREWMEMBER WITHDRAWN FROM SERVICE

TYPE ACTION	AIR CARRIER	NOTES
1. Air Carrier Operating Certificate legally suspended or revoked	Sundorf Aviation Spirit Airways Rich International	Sundorf's certificate revoked based on Phase I data. Rich had 2 aircraft grounded by FAA prior to certification action
2. Operations Specifications legally withdrawn/deleted	Combs Freightair	Part 135 operations specifications only
3. Aircraft Airworthiness Certificate legally suspended	American Central	
4. Air carrier voluntarily surrendered certificate or operations specifications	Carribean Express Slocum Air	Carribean surrendered operations specifications based on Phase I data
5. Air carrier voluntarily grounded aircraft	Air Resort Resort Airlines Air Pac	
6. Air carrier voluntarily withdrew pilots from service for various periods of time	People Express Alaska Airlines Markair	People - 55 pilots Alaska - 90 pilots Markair - 27 pilots
7. Air carrier expansion or added routes restricted by FAA pending corrective action	Northeastern Arrow Airways Pilgrim	
TOTAL NUMBER OF AIR CARRIERS SIGNIFICANTLY IMPACTED BY NATI	16	16 ÷ 327 = .0489 or 5%

Table D-3

APPENDIX E

SAMPLE OF SPECIAL PURPOSE TEAM INTERIM REPORT

This appendix contains an example of a Phase II Special Purpose Team Interim Report. Substantiating documentation is not included due to its volume.

EMERGENCY EQUIPMENT AND CARRY-ON BAGGAGE
INTERIM REPORT

PURPOSE

A special NATI team was formed to conduct a study concerning emergency equipment and carry-on baggage problems existing in Part 121 air carrier service. Previous inspection reports revealed discrepancies concerning the stowage, accessibility, condition, and inspection of emergency equipment. In addition, numerous complaints have been received concerning hazards associated with the quantity, size, and weight of carry-on baggage. The purpose of this study was to evaluate conformity with existing regulations, identify problems associated with emergency equipment and carry-on baggage, and recommend solutions to improve overall cabin safety.

BACKGROUND: CURRENT FAR REQUIREMENTS

The following is a summary of the current regulatory requirements applicable to this study.

FAR 121.309 specifies the basic emergency equipment that must be installed on an aircraft; i.e., fire extinguishers, first aid kits, crash ax, and megaphones. Subparagraph (b) addresses general accessibiltiy, maintenance requirements, and a requirement to mark each item of equipment with the "date of the last inspection." Subparagraph (f), concerning megaphones, is more specific concerning accessbility and requires a megaphone to be "readily accessible to the crewmembers assigned to direct emergency evacuation." For aircraft requiring two megaphones, they have to be "readily accessible to a normal flight attendant's seat."

FAR 121.310 generally speaks to emergency exit requirements and emergency lights. However, two subparagraphs, (k) and (l), are of concern to this study. Subparagraph (k) applies to passenger-carrying turbojet aircraft with a ventral or tailcone exit, and requires a specific placard be placed "at a conspicuous location near the means of opening the exit." Subparagraph (l) requires a "flashlight stowage provision accessible from each flight attendant's seat." It should be noted that there is no regulatory requirement to place a flashlight in the provided receptacle.

FAR 121.340, which applies to flight attendants as well as passengers, requires a life preserver or flotation device to be "within easy reach of each seated occupant."

FAR 121.391(d) states, in part, "During taxi, flight attendants required by this section must remain at their duty stations with safety belts and shoulder harnesses fastened except to perform duties related to the safety of the airplane and its occupants."

FAR 121.589 contains the only requirements for carry-on baggage. Subparagraph (a) requires carry-on baggage to be stowed for takeoff and landing under a seat or in a compartment placarded for its maximum weight, providing proper restraint, and not hindering the possible use of emergency equipment. FAR 121.589 also references FAR 121.285(c) to allow cargo or carry-on baggage to be stowed anywhere in a passenger compartment aft of a bulkhead or divider provided it is properly secured. Regulations do not specifically discuss the number, size, or weight of baggage carried on board.

METHOD

The primary method used during this study was to go to selected airports, board an aircraft, inspect the emergency equipment, discuss any carry-on baggage problems with the flight attendants, and observe the loading process and stowage of carry-on items. In addition, no-notice en route observations were made by purchasing tickets and riding as a passenger without the carrier's knowledge. Finally, information was also obtained through discussions with crewmembers, agents, security personnel, other inspectors, and personal observations throughout the selected airports. Where feasible, photographs were also taken to substantiate these findings (Attachments 2 through 5). Due to limited manpower and time restraints, the scope of this study had to be restricted to Part 121 air carriers operating turbojet aircraft. In addition, in order to obtain the most accurate and truthful information in the least time possible, this study had to be conducted with a degree of anonymity. Therefore, it would be improper and unfair to initiate enforcement action based on data gathered in this manner. Unsafe conditions requiring action were immediately brought to the attention of appropriate authorities for correction.

During the month of May, the three assigned inspectors visited 10 selected airports, and conducted 198 ramp inspections on 37 different air carriers. In addition, 21 no-notice en route observations and 17 regular en route inspections were conducted. Virtually all types of turbojet aircraft in air carrier service were covered during this study. A total of 440 manhours were devoted exclusively to this project.

Since this study was conducted during actual line operations, no effort was made, nor was it possible to conduct a complete conformity inspection for all Part 121 requirements. Consequently, the findings in this report are a summary of the major and most frequent observations. Numerous minor or infrequent infractions were detected, but are not included for sake of brevity.

Finally, it should be emphasized that during this study all flight attendants, crewmembers, and agents contacted readily admitted that carry-on baggage is out of control. Further, they applauded the FAA's efforts and pleaded for regulatory action to bring this problem under control once again.

FINDING

1. Flight attendants life vests are occasionally not accessible from the flight attendant's seat.

2. Most megaphones are installed in overhead bins not accessible from the flight attendant's seat.

3. Flashlight stowage provisions are admittingly never used or are not suitable for the type of flashlights carried by flight attendants.

4. Emergency flashlights are frequently installed in locations not accessible to a flight attendant's seat.

5. Some emergency equipment inspection data reflect the due date, instead of the last inspection date.

DISCUSSION/CONCLUSION

Regulations require most emergency equipment to be stored in a place readily accessible to the crew. However, there are specific requirements regarding life vests, megaphones, and (by the letter of regulation) a flashlight stowage provision. These items must be readily accessible to a flight attendant's seat. Inspections revealed that most carriers are in compliance concerning life vests and have installed the new emergency type flashlights. In some cases, life vests are located at the far end of the aircraft from the flight attendant's seat, and the flashlights are installed in bins, closets, and on bulkheads definitely inaccessible to the flight attendant's seat. Those few carriers which have not installed the new type emergency flashlight have provided a stowage provision near the flight attendant's seat. However, flight attendants readily admit that they are never used and most will not fit the type of flashlight carried.

In regard to megaphones, most carriers are in noncompliance by installing the megaphones in overhead bins. A few carriers, however, do have the megaphones accessible to the flight attendant's seat.

Finally, FAR 121.309(b)(4) requires emergency equipment to be marked with the date of the last inspection. A few carriers mark the equipment with only the next due date. In isolated cases, no data or more than one date were indicated.

Failure to enforce these regulatory requirements or the nonstandard approach only fosters noncompliance.

FINDING

6. Ventral or tailcone exit placarding is inconsistent and appears inappropriate in some cases.

DISCUSSION/CONCLUSION

FAR 121.310(k), applicable to turbojet aircraft with a ventral or tailcone exit, requires a placard installed at a conspicuous location near the means of opening the exit to reflect that it cannot be opened in flight. Obviously, this placard was intended for passenger information. Most carriers have installed such a placard on the cabin side of the rear exit door and in the tailcone by the handle. Some carriers, however, have the placard only in the tailcone, and one carrier had no placards at all. It would only appear logical for such a placard to be installed on the passenger side of the rear door.

FINDING

7. The number and size of garment bags (hang-up suitcases) take up so much space that it is difficult to store all items carried on board.

8. Passengers frequently board with very large or odd shaped items that will not fit in an authorized stowage area.

9. Flight attendants frequently discover items during taxi that cannot be properly stowed due to the size or shape.

10. Odd size items and excess carry-on baggage are often stowed in the lavatories, cockpit, or empty seat rows due to the lack of space or adequate size facilities.

DISCUSSION/CONCLUSION

One of the primary problems associated with carry-on baggage is that of having a place to put it - space. The problem of space or adequate stowage facilities varies widely depending on such factors as: carrier, aircraft, configuration, airport, season, load factor, type of passengers, number and size of carry-on baggage, etc. This study estimates 25 percent of all passengers carry one or no bag, 60 percent carry two bags, and 15 percent carry three or more bags on board.

Storage space aboard an aircraft generally reaches its capacity at 75 to 80 percent load factor. The primary reason for reaching the capacity so soon is the high number and large size of garment (hang-up) bags carried aboard. The term garment bags is really no longer appropriate in that they are really folding suitcases. It was frequently observed where one garment bag filled an entire overhead bin. Likewise, it took only a few garment bags to fill a fairly good size coat closet. Capacity is further limited by some passengers who place all of their carry-on baggage in overhead bins in order to have more leg room. The area above the first row of seats behind a bulkhead is always extremely full due to no underseat stowage space. Space is further limited by flight attendants baggage, and galley and lavatory supplies stowed under seats and in overhead bins.

Passengers aggravate the carry-on baggage problem by trying to trick or sneak items on board. Frequently, passengers do not have all of their carry-on baggage with them when checking in at the gate for a boarding pass. Passengers were observed denying having carry-on baggage and were later seen carrying two bags on board. One agent checked a bag and told the male passenger to leave it on the jetway. As the inspector followed him on the aircraft, he commented about having to wait for his bags, and took it on anyway. Ladies have been found trying to hide dogs under their hats and in garment bags to avoid buying a carrying case. Passengers frequently coerce agents and flight attendants alleging that other carriers allowed certain items on board. One passenger told a flight attendant in the presence of an inspector that the FAA had given permission to store a box by his feet. When questioned by the inspector, he permitted the box to be stored in the overhead bin. Other flight attendants reported being told by passsengers that they worked for the FAA and it was alright to store their bags in the lavatories.

Another space problem is an article of such size or shape that it will not fit in available space. The following odd sized items were observed during this study: surfboards, large (unapproved) child seats, strollers, portfolios, boxes, and even some garment bags. Unfortunately, these items are frequently not stopped by the agents or detected by the flight attendants during the boarding process. All too often they are not discovered until the door has been closed or during taxi.

Flight attendants generally make every effort to stow all carry-on baggage. Flight attendants were observed placing suitcases and other items on top of emergency equipment in overhead bins. Other items are placed behind the last row of seats and, in one case, flight attendants were stuffing passengers carry-on baggage in empty galley compartments. Naturally, once an item is on board, it is extremely difficult to take it away and have it checked. Further, agents are very reluctant to help for fear of a delay or eventual lost bag. Apparently, passengers are also very concerned as several fights and arguments have broken out over the right to stowage space.

Almost all flight attendants admitted that there are times when they have no other choice than to store excess or oversized carry-on baggage in lavatories, the cockpit, or in an empty row of seats. On a recent flight, a large pink rabbit was placed in the cockpit jump seat normally used by the FAA.

The space problem has been recognized by all carriers. One has already implemented a two-bag limit, but admits to extreme difficulty due to competition and lack of a common standard.

FINDING

11. Carry-on items stored under seats frequently leave insufficient leg room to facilitate rapid egress from that row.

DISCUSSION/CONCLUSION

As stowage facilities reach capacity, more and more items are stuffed under seats. On numerous observations, carry-on baggage under seats has protruded so far into the leg room area that the passengers had no other choice than to place their feet on top of the items. Likewise, many articles were observed that only fit part way under the forward seat. On no-notice en route inspections, passengers were observed with bags behind their knees during the takeoff and landing. Loose galley supplies are also frequently stored under the last row of seats and would surely become dislodged during impact. Add to these problems, reduced seat spacing and the feasibility of rapid egress from seat rows become very critical. The mere volume of articles placed on the floor would create serious hazards in an actual emergency evacuation.

It should also be noted that it is very difficult to ascertain if all articles are properly stowed with all passengers seated in the row.

FINDING

12. Flight attendants must spend considerable time during taxi out relocating and stowing carry-on baggage instead of attending to other safety duties and requirements.

DISCUSSION/CONCLUSION

Frequently, boarding occurs just before pushback and there is insufficient time to properly stow all carry-on baggage. One carrier advertises a 10-minute turn and often pushes back with passengers standing trying to stow bags in overhead bins. Consequently, flight attendants are forced to stow and relocate a considerable amount of carry-on baggage during taxi - a situation that has already caused numerous injuries. On one no-notice en route inspection, a flight attendant stowed bags until the aircraft was taking the runway for takeoff.

FAR 121.391(d) requires flight attendants to remain strapped in their seats during taxi except for safety related items. The preamble to Part 121 applicable to FAR 121.391(d) clarifies that stowing baggage and taking drink orders are not considered safety related duties. Therefore, stowing bags during taxi is not only contrary to the intent of FAR 121.391(d), but also detracts from required safety related duties.

FINDING

13. Company equipment and galley supplies are often stored under seats and in overhead bins mixed with emergency equipment.

14. Emergency equipment in overhead bins was frequently not accessible due to being covered by carry-on baggage and other articles.

15. Trash bags are very frequently stored in lavatories or the cockpit during descent.

16. Flight attendants baggage is very often placed unsecured behind (but not under) the last row of seats.

DISCUSSION/CONCLUSION

FAR 121.576 requires the carrier to provide adequate storage facilities for galley equipment and crew baggage. Likewise, FAR 121.589 prohibits the stowage of carry-on baggage if it will hinder the use of emergency equipment. On many observations, galley and lavatory supplies, miscellaneous equipment, clothing, and other items were stowed under seats, behind seats, in overhead bins, and frequently mixed with emergency equipment. Flight attendants were observed on several occasions placing suitcases and other carry-on baggage over emergency equipment in overhead bins clearly making it difficult to retrieve. When questioned, most flight attendants did not understand where they should store different items, but most admitted that space was so tight that they stored whatever they could where ever they could. In addition, many flight attendants admitted regularly stowing trash in the lavatories or cockpit. It should be noted, however, that one of the most common findings during this study was the improper stowage of flight attendants crew bags. In many cases, their bags would have fit under a seat, but was simply placed behind the seat instead. Having designated stowage areas and knowing where items should be stored appear to be a common problem.

FINDING

17. Flight attendants expressed general confusion over FAR 121.285(c) concerning proper stowage of cargo in the passengers compartment.

DISCUSSION/CONCLUSION

One of the most commonly asked questions by flight attendants was where and how to store cargo in the passengers compartment - an obvious reference to FAR 121.285(c). Flight attendants were extremely confused over the difference between cargo and carry-on baggage and what constituted proper restraints to meet a Part 25 regulatory standards. Many assumed it was permissible to place routine carry-on baggage or their own crew baggage in seats and secure with a seat belt. These questions seemed almost paradoxical in view of the study and concern about carry-on baggage.

FINDING

18. The weight of carry-on items frequently exceeds the weight limitations of stowage bins and closets.

19. Excessive garment bags stowed in hang-up areas often bulge and partially block the main exit aisle.

20. Hang-up closets are frequently not placarded or have only one placard not specifying if it applies to the rod or to the floor limits.

DISCUSSION/CONCLUSION

Another problem associated with carry-on baggage is weight. Many passengers carry bags on board that are so heavy they can hardly lift them. Some passengers were even observed dragging heavy bags aboard. The potential for injury is so great that most carriers have a policy prohibiting flight attendants from handling large bags. There is no doubt large bags contain much more than clothing. Through observations and reports during this study, garment bags have been found containing bicycles, typewriters, bowling balls, golf clubs, and even an embalmed human body. Not only are garment bags heavy, but numerous boxes and other containers are also extremely heavy. One passenger proudly announced she was carrying 40 pounds of barbecue in her bag.

Overhead stowage bins, most commonly used for garment bags, are placarded for limits ranging from 20 to 210 pounds. Most of the smaller bins are frequently loaded with more than the limited weight. Passengers have been observed stuffing overhead bins so full that they could hardly be closed. Unfortunately, reports have also been received of bins opening in flight and on landing causing injuries to those beneath.

Coat closets also vary in limited weight capacity ranging from 60 to 250 pounds. Many closets were observed so full that the doors could hardly be closed. Vertical lifts on the L-1011 have broken due to excessive weight. Some side facing closets use a strap to restrain the bags. Frequently, the closet is so full, excess bags bulge out below the retaining strap, blocking half of the main aisle to a primary exit. Flight attendants have reported several instances where coat rods have collapsed during flight. There is no doubt that many closet and overhead bin load limits are exceeded on every flight.

Closets on some carriers are placarded with a maximum weight limit for each shelf, coat rod, and floor area. Other carriers, however, did not have placards at all or had only one indicating a maximum weight for the entire compartment. By design, some closets are not suitable for floor storage by not providing side restraints.

FINDING

21. Numerous flight crews have expressed serious concern about weight and balance limitations due to the amount of carry-on baggage.

DISCUSSION/CONCLUSION

The large number of carry-on bags has presented an additional safety problem related to aircraft weight and balance control. A/C 120-27A basically recommends the use of a standard passenger weight plus not less than 5 pounds per passenger for carry-on baggage. As far as could be determined, the majority of air carriers have adopted the 5-pound guideline. While 5 pounds for carry-on baggage may have been sufficient in the past, that is no longer the case. Passengers are carrying on board an ever increasing number and much heavier carry-on bags. On an aircraft such as a B-727, the takeoff weight may be in error by up to 2,500 pounds. Numerous crewmembers have expressed concern about this problem and state takeoff power settings and airspeeds are frequently higher than planned - especially on full flights. Finally, one air carrier has already increased its allowance for carry-on baggage to 10 pounds per passenger.

RECOMMENDATIONS

1. AFO-200 should publish a memorandum requiring all principals to ensure compliance with the accessibility requirements of FAR 121.340(a) concerning the location of flight attendants life vests.

   This recommendation is based on finding No. 1.

2. FAR 121.309(f)(2) should be evaluated for possible regulatory change to delete the requirement that megaphones must be accessible from a flight attendant's seat. Otherwise, carriers should be required to conform with the requirement.

   This recommendation is based on finding No. 2.

3. FAR 121.310(l) should be amended to change the requirements for a flashlight stowage provision to be accessible for each flight attendant's seat to require a properly stored flashlight be made accessible to each flight attendant's seat. Principals should be required to ensure compliance with the accessibility requirements.

   This recommendation is based on finding Nos. 3 and 4.

4. AWS-300 should publish a memorandum requiring principals to ensure compliance with the last inspection date requirement marked on emergency equipment in accordance with FAR 121.309(b)(4).

   This recommendation is based on finding No. 5.

5. AWS-300 should publish standards or guidance requiring the ventral exit placard referenced in FAR 121.310(k)(2) to be installed on the passenger side of the aft door.

   This recommendation is based on finding No. 6.

6. FAR 121.589 concerning carry-on baggage should be amended to include the following requirements:

   a. Maximum limit of two carry-on items per passengers, excluding women's purses.

   b. Maximum weight of 15 pounds for each carry-on item.

c. Each item carried on board must be of such a size so as to fit completely under a seat or in a designated carry-on baggage stowage area.

d. An aircraft cannot be moved until each item of carry-on baggage has been properly stowed and the cabin is secure.

NOTE: It is important that regulatory changes limiting carry-on baggage be widely disseminated to the traveling public.

This recommendation is based on finding Nos. 7, 8, 9, 10, 11, 12, 18, and 19.

7. FAR 12.309(b)(2) should be amended to require each item of emergency equipment to be stored in an area free from other nonemergency equipment articles.

This recommendation is based on finding Nos. 13 and 14.

8. AFO-200 should publish a memorandum requiring principals to ensure compliance with the requirements of FAR 121.576 concerning adequate stowage facilities for galley equipment and crew baggage. In addition, carriers must be made aware of their responsibilities concerning refuse stowage and approved stowage areas for carry-on baggage.

This recommendation is based on finding Nos. 13, 14, 15, and 16.

9. FAR 121.285(c) should be critically reviewed for clarification of location, restraint requirements, and type of cargo or carry-on baggage intended. Recommend a definition of carry-on baggage as an item carried on board by passengers that will fit under a seat or in an approved carry-on item stowage area (see recommendation No. 6). Any item not meeting that definition would be considered cargo. Therefore, FAR 121.589 would no longer reference FAR 121.285(c). FAR 121.285(c) could then define where and how cargo could be carried in the passengers compartment and the requirements for carriers procedures.

This recommendation is based on finding No. 17.

10. AWS-300 should publish standards specifying that in multiple stowage compartments, each major shelf, hang-up rod, and floor area should be placarded with the maximum weight limit in compliance with FAR 121.589(a)(1).

This recommendation is based on finding Nos. 18, 19, and 20.

11. As an interim measure, air carriers should be required to increase the allowance for carry-on baggage weight from 5 pounds per passenger to 10 pounds per passenger in the weight and balance programs. This requirement should be accomplished through amendment of operations specifications. Finally, ATA or FAA should conduct a test program to determine more accurately what the actual checked and carry-on baggage weight allowances should be.

    This recommendation is based on finding No. 21.

SUMMARY

Overall, the status of emergency equipment appears reasonable. There are, however, problems concerning accessibility of some items and stowage of emergency equipment with other articles. Although there are considerable regulatory requirements concerning emergency equipment, problems do exist with conformity by some air carriers and inadequate regulatory guidance. Failure to enforce regulatory requirements can only foster an attitude of noncompliance. Failure to correct inadequacies or to provide reasonable regulatory requirements not only reflects poorly upon the FAA, but is contrary to our mandate to provide the highest level of safety possible.

By contrast, there are relatively few regulatory requirements regarding carry-on baggage. The problems associated with carry-on baggage have been steadily increasing over the years and have now reached a point of being out of control. While every flight does not experience a problem concerning carry-on baggage, most flights do by either inaccurate weight and balance, odd sized carry-on items that cannot be stowed properly, or the inability to store excessive amounts of carry-on items. Further, every airline is faced with a carry-on baggage problem that they cannot control under existing regulations. It should be reemphasized that all airline personnel contacted during this study readily admit the problem is out of hand. Further, they strongly applaud the FAA's efforts and plead for regulatory action to bring this problem under control once again.

The recommendations in this report are not intended to resolve all problems concerning emergency equipment or carry-on baggage. But they are intended to help reestablish and maintain the highest level of safety possible through reasonable and effective regulatory requirements.

ADDITIONAL FINDINGS

The following items were observed or discovered during the course of this study. However, since they are not directly related to emergency equipment or carry-on baggage, they are included in the report for information purposes:

NOTE: On every no-notice en route inspection, where the carrier was not aware an inspector was on board, numerous procedural violations occurred. By contrast, on every regular en route, with prior notice, no violations were observed.

1. On most no-notice en route flights, flight attendants ignored the requirements of FAR 121.391(d) to remain in their seats during taxi except for safety related duties. Flight attendants were observed talking with one another, talking with other passengers, taking drink orders, and passing out magazines.

2. On several no-notice en route flights, the forward flight attendant was observed having friendly conversations with the cockpit crew during taxi contrary to FAR 121.542(b) In most instances, the flight attendants did not take their seats until the very last minute. In one case, the flight attendant was strapping in during rotation.

3. Passengers practically ignore the seat belt sign. Flight attendants make little or no effort to control the movement and are usually ineffective when they try.

4. Two carriers were observed providing a drink service before departing the gate. Consequently, a pick-up had to be accomplished during the taxi contrary to the preamble of FAR 121.391(d).

5. Flight attendants and mechanics have reported a practice by several carriers when an extensive ATC delay is incurred. Passengers and crew are loaded and the aircraft is secured including moving the jetway back for departure. The aircraft then sits at the gate until released for taxi. If an evacuation is required, it is doubtful the forward slide would deploy due to the position of the jetway.

6. On certain flights involving the tourist trade, the majority of passengers carries on board up to a gallon of alcohol. The safety and fire consequences of having that much alcohol on board raise concern. In addition, the contents of the containers should be of concern to security.

SPECIAL CABIN SAFETY RECOMMENDATION

This study on emergency equipment and carry-on baggage has clearly identified a need for greater emphasis on all cabin safety requirements. Since deregulation, considerable FAA inspector manpower has been expended on the certification of new air carriers while still administering to existing air carriers. It is apparent that cabin safety, by necessity, has received only minimal attention. Principal Operations Inspectors are usually familiar with cabin safety requirements and, while responsible for numerous other aspects, do their best to approve flight attendant training programs, manuals, procedures, and handle emergency equipment and related cabin safety requirements. Likewise, airman certification inspectors, while true specialists on operational requirements for a particular aircraft, are usually not as familiar with the cabin safety requirements as Principal Operations Inspectors. Airworthiness inspectors, on the other hand, are usually very knowledgeable of the emergency equipment but less familiar with the operational cabin safety requirements. Consequently, there are no real specialists in field of cabin safety.

At present, there is only one cabin safety inspector in field duty with the FAA, domiciled in the Central Region, CE-FSDO-63. Throughout the inspection, her expertise and knowledge of cabin safety became extremely apparent and essential to the success of this study. In addition, she is frequently called upon by other offices for advice and assistance on cabin safety matters. The affect of having a cabin safety inspector in Central Region was also apparent in the condition and procedures observed on the carriers under her jurisdiction, as opposed to most other carriers.

There is no doubt that a cabin safety specialist can enhance cabin safety by providing the expertise and attention needed in approving flight attendant training programs, manuals, procedures, passenger information cards, and through surveillance and monitoring of cabin safety requirements. In addition, cabin safety specialists could handle cabin and passenger violations as well as passenger complaints involving cabin matters, thereby reducing a considerable workload from the assigned principals. This report clearly reflects the need for continuous emphasis and surveillance concerning emergency equipment and carry-on baggage, as well as the entire cabin safety program.

Therefore, it is recommended that one cabin safety inspector position be established in each region, domiciled in the largest air carrier district office, to assist all principal inspectors on air carrier certificates held by that region.

APPENDIX F

LIST OF AIR CARRIERS RECEIVING INSPECTIONS: PHASE I AND PHASE II

This Appendix includes the identification of all the air carriers that received Phase I inspections. There are also two lists which give the names of the air carriers who received Phase II in-depth inspections and the air carriers/facilities visited by special teams.

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
AAA AIR ENTERPRISES INC	TLAA	ACE	CE12	OMAHA	NE
AERO COACH AVIATION INTL	ACAA	ASO	SO65	FT. LAUDERDALE	FL
AERO TRANSIT	ARTA	ANE	NE13	DANVERS	MA
AERO VIRGIN ISLANDS CORP	AVIA	ASO	SO61	ST. THOMAS U.S.	VI
AIR ATLANTA INC	ATLA	ASO	SO67	ATLANTA	GA
AIR BERLIN USA	ABUA	AEU			
AIR CALIFORNIA	ACLA	AWP	WP65	NEWPORT BEACH	CA
AIR CORTEZ INTL	ACZA	AWP	WP66	LAS VEGAS	NV
AIR EXPRESS INT'L AIRLINE	AEIA	ASO			
AIR FLORIDA INC	AFLA	ASO	SO65	MIAMI	FL
AIR ILLINOIS	AILA	AGL	GL31	CARBONDALE	IL
AIR KENTUCKY	AKYA	ASO	SO63	OWENSBORO	KY
AIR MIDWEST INC	AMWA	ACE	CE22	WICHITA	KS
AIR MOLOKAI	MOLA	AWP	WP61	HONOLULU	HI
AIR NATL SALES & SERVICE	ANIA	AWP	WP02	MONTEREY	CA
AIR NEVADA	RNVA	AWP	WP66	LAS VEGAS	NV
AIR NEW ORLEANS	ORLA	ASW	SW12	NEW ORLEANS	LA
AIR NORTH	ANDA	AAL	AL61	FAIRBANKS	AK
AIR NORTH INC	ANAA	ANE	NE15	SO. BURLINGTON	VT
AIR ONE	ONEA	ACE	CE62	ST.LOUIS	MO
AIR RESORTS	FLTA	AWP	WP69	CARLSBAD	CA
AIR SEDONA	X1CC	AWP	WP67	SEDONA	AZ
AIR SOUTH INC.	SAVA	ASO	SO65	FT. LAUDERDALE	FL
AIR SUNSHINE INC	RSHA	ASO	SO65	FT.LAUERDALE	FL
AIR TRANSPORT INTL	IACA	AGL	GL63	YPSILANTI	MI
AIR VECTORS AIRWAYS	AVAA	AEA	EA61	NEWBURGH	NY

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
AIR VIRGINIA	FAVA	AEA	EA16	LYNCHBURG	VA
AIR WISCONSIN	AWAA	AGL	GL61	APPLETON	WI
AIRBORNE EXPRESS INC	ABXA	AGL	GL63	WILMINGTON	OH
AIRLIFT ASSOCIATES	WPKA	ASO	SO66	MORRISVILLE	NC
AIRLIFT INTERNATIONAL	RDLA	ASO	SO65	MAIMI	FL
AIRMARC AIRLINES	XCJA	AEA	EA61	FARMINGDALE	NJ
AIRPAC INC	APHA	AAL	AL63	ANCHORAGE	AK
AIRSPUR HELICOPTERS INC	ASRA	AWP	WP65	LOS ANGELES	CA
AIRWAYS OF NEW MEXICO INC	ANMA	ASW	SW01	ALAMOGORDO	NM
ALASKA AERONAUTICAL INDUS	AKIA	AAL	AL63	ANCHORAGE	AK
ALASKA AIRLINES	ASAA	ANM	NM61	SEATTLE	WA
ALASKA ISLAND AIR,INC	ALLA	AAL	AL62	PETERSBURG	AK
ALL STAR	ASIA	ANE	NE61	WOBURN	MA
ALOHA AIRLINES	TSAA	AWP	WP61	HONOLULU	HI
ALPINE AVIATION	TIMA	ANM	NM67	PROVO	UT
ALTUS FLYING SERVICE	ASFA	ASW	SW09	ALTUS	OK
ALYESKA AIR SERVICE	ALYA	AAL	AL63	ANCHORAGE	AK
AMERICA WEST	AWXA	AWP	WP67	TEMPE	AZ
AMERICAN AIRLINES INC	AALA	ASW	SW33	DALLAS	TX
AMERICAN CENTRAL AIRLINES	TSFA	ACE	CE04	DUBUQUE	IA
AMERICAN INTRNL AIR,INC	AKBA	ACE	CE33	HUNTINGDON VALY	PA
AMERICAN PRO AIR SERVICE	X3AA	ASO			
AMERICAN TRANS AIR	AMTA	AGL	GL31	INDIANAPOLIS	IN
AMERIJET INTERNATIONAL	X4AA	ASO			
ARCATA FLYING SERVICE	AFSA	AWP	WP64	MCKINLEYVILLE	CA
ARCTIC CIRCLE AIR SERVICE	ACSA	AAL	AL61	FAIRBANKS	AK

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
ARISTA INTERNATIONAL AIRL	AIMA	AEA	EA31	NEW YORK	NY
ARKANSAS TRAVELER	HOGA	ASW		MIDWAY	AR
ARMADILLO AIRWAYS	AMDA	ASW	SW05	HOUSTON	TX
ARROW AIRWAYS	ARWA	ASO	SO65	MIAMI	FL
ASPEN AIRWAYS	ASPA	ANM	NM31	DENVER	CO
ATLANTIC AIR (GOODRICH)	AAGA	ANE	NE19	STRATFORD	CT
ATLANTIC GULF AIRLINES	AGFA	ASO	SO64	CLEARWATER	FL
ATLANTIC SOUTHEAST	ASOA	ASO	SO67	COLLEGE PARK	GA
ATLANTIS AIRWAYS	AAOA	ASO	SO67	FLORENCE	SC
AUDI AIR	AUIA	AAL	AL61	KAKTOVIK	AK
BAKER AVIATION INC	BAJA	AAL	AL61	KOTZEBUE	AK
BANGOR INTERNATIONAL	XIGG	ANE	NE15	BANGOR	ME
BANKAIR,INC	BKAA	ASO	SO67	WEST COLOMBIA	SC
BAR HARBOR AIRLINES	BHAA	ANE	NE15	BANGOR	ME
BARROW AIR,INC	BINA	AAL	AL61	BARROW	AK
BASLER FLIGHT SERV,INC	BASA	AGL		OSHKOSH	WI
BEAVER AVIATION SERVICE	SKNA	AEA	EA14	BEAVER FALLS	PA
BELLAIR INC	BLLA	AAL	AL62	SITKA	AK
BEMIDJI AIRLINES	BEMA	AGL	GL14	BEMIDJI	MN
BERING AIR INC	X5HH	AAL			
BEST AIRLINES	BALA	AGL	GL63	FLORENCE	KY
BIG SKY AIRLINES	BSAA	ANM	NM63	BILLINGS	MT
BLACKHAWK	BAKA	AGL			
BLUE BELL INC	WRNA	ASO	SO66	GREENBORO,NC	NC
BO-S-AIRE	BOSA	ASO	SO67	ANDERSON	SC
BRANIFF	BNFA	ASW	SW33	DALLAS	TX

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
BRENNAN AND HARGREAVES	BAHA	ANE	NE19	HARTFORD	CT
BRITT AIRLINES	BRIA	AGL	GL10	TERRE HAUTE	IN
BUFFALO AIRWAYS	BUFA	ASW	SW33	WACO	TX
C & M AVIATION/MOJAVE	REMA	AWP	WP01	INYOKERN	CA
CAM AIR	FLAA	ASO	SO65	MIAMI	FL
CAPE SMYTHE AIR SERVICE	CSAA	AAL	AL62	BARROW	AK
CAPITOL AIR SERVICE	CPAA	ACE	CE11	MANHATTAN	KS
CAPITOL INTL AIRWAYS	CAPA	ASO	SO63	SYRNA	TN
CARIBBEAN AIR SERVICES	CASA	ASO	SO67	SAN JUAN	RQ
CARRIBEAN EXPRESS,INC	X1BB	ASO	SO67	MIAMI SPRINGS	FL
CASCADE AIRWAYS INC.	CCDA	ANM	NM66	SPOKANE	WA
CATSKILL AIRWAYS,INC.	CSKA	AEA	EA01	ONEONTA	NY
CENTENNIAL AIRLINES	CNLA	ANM	NM62	WARLAND	WY
CENTURY AIRLINES	CENA	AGL	GL63	PONTIAC	MI
CHALKS INTL AIRLINES	CICA	ASO	SO65	MIAMI	FL
CHALLENGE AIR TRANSAIR	CLGA	ASO	SO67	MIAMI	FL
CHANNEL FLYING, INC.	CFIA	AAL	AL62	JUNEAU	AK
CHAPARRAL AIRLINES	CPLA	ASW	SW07	ABILENE	TX
CHATAUQUA AIRLINES	CHQA	AEA	EA17	JAMESTOWN	NY
CHRISTMAN AIR SYSTEMS	CHSA	AEA	EA14	WASHINGTON	PA
CLINTON AERO. CORP	CLTA	AEA	EA01	PLATTSBURGH	NY
CLOUD 9 HELICOPTER TOURS	X2CC	AWP	WP61	HONOLULU	HI
COASTAL AIRLINES INC	CMOA	AEA	EA11	FARMINGDALE	NY
COASTAL ARLN/NATL AIR	CAKA	ANE	NE13	MIDDLETOWN	RI
COLGAN AIRWAYS	CJCA	AEA	EA62	MANASSAS	VA
COMAIR,INC	COMA	ASO	SO63	CINCINNATI	OH

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
COMBS FREIGHTAIR/FRONT CO	CMBA	ANM	NM31	DENVER	CO
COMMAND AIRWAYS,INC	CAIA	AEA	EA61	WAPPINGERS FLS	NY
CONNER AIRLINES	CNAA	ASO	SO65	MIAMI	FL
CONTINENTAL AIRLINES	CALA	AWP	WP62	HOUSTON	TX
COOK INLET AVIATION	CKAA	AAL			
CORAL AIR	CRLA	ASO	SO61	ST. CROIX U.S.	VI
CROWN AIRWAYS,INC	CROA	AEA	EA14	FALLS CREEK	PA
CROWNAIR	DWIA	ASO	SO61	SAN JUAN	RQ
DASH AIR	ARIA	AWP	WP65	SANTA ANA	CA
DELTA AIRLINES	DALA	ASO	SO67	ATLANTA	GA
DESERT SUN AIRLINES, DBA	DSAA	AWP	WP65	LONG BEACH	CA
DHL CARGO,DBA AIR POLYSIA	APIA	AWP	WP61	HONOLULU	HI
DIRECT AIR	DIRA	AGL	GL10	KOKOMO	IN
EAGLE AVIATION,INC	EAGA	ASW	SW33	DALLAS	TX
EAGLE COMMUTER AIRLINES	EGLA	ASW	SW10	BROWNWOOD	TX
EAST HAMPTON AIR,INC	EHMA	AEA	EA11	EAST HAMPTON	NY
EASTERN AIRLINES	EALA	ASO	SO65	MIAMI	FL
EMERALD AIR INC / DBA	EMAA	ASW	SW10	AUSTIN	TX
EMPIRE AIRLINES	X1FF	ANM	NM66	HAYDEN LAKE	ID
EMPIRE AIRLINES,INC	EMPA	AEA	EA01	UTICA-ROME	NY
ERA HELICOPTERS, INC.	ERAA	AAL	AL63	ANCHORAGE	AK
EVERGREEN INTERNATIONAL	EIAA	ANM	NM61	MCMINNVILLE	OR
EXCELLAIR	EXLA	ANM	NM31	DENVER	CO
EXECUTIVE AIRLINK	EAKA	ASW	SW05	HOUSTON	TX
EXECUTIVE CHARTER SERVICE	X2HH	AAL			
FEDERAL EXPRESS CORP	FDEA	ASO	SO63	MEMPHIS	TN

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
FINAIR	FNXA	ASO	SO65	MIAMI	FL
FISHER BROSTHERS AVIATION	FBAA	AGL	GL06	GALION	OH
FLAMENCO AIRWAYS	FLMA	ASO	SO61	CULEBRA	PR
FLIGHT LINE INC	FLIA	ASO	SO63	JACKSON	MS
FLORIDA AIRMOTIVE	FAMA	ASO	SO65	LANTANA	FL
FLORIDA EXPRESS	FLXA	ASO	SO65	ORLANDO	FL
FLORIDA WEST AIRLINES	PANA	ASO	SO65	MIAMI	FL
FLYING TIGER LINE	FTLA	AWP	WP62	LOS ANGELES	CA
FORD-AIRE, INC.	SQHA	AEA	EA01	SIDNEY	NY
FOSTER AVIATION INC	FSAA	AAL			
FOURTY MILE AIR LTD	FMAA	AAL			
FREEDOM AIR, DBA	FAGA	AWP	WP61	AGANA	GQ
FREEDOM AIRLINES	CRAA	AGL	GL06	CLEVELAND	OH
FRONTIER AIRLINES	FALA	ANM	NM31	DENVER	CO
FRONTIER FLYING SERVICE	FFSA	AAL	AL61	FAIRBANKS	AK
FRONTIER HORIZON	FHRA	ANM	NM31	DENVER	CO
GALAXY AIRLINES	GALA	ASO	SO65	FT. LAUDERDALE	FL
GENERAL AVIATION INC	GAIA	ASO	SO62	GREENEVILLE	TN
GLOBAL INTERNATL AIRWAYS	GIAA	ACE	CE33	KANSAS CITY	MO
GOLDEN PACIFIC AIRLINES	GPAA	AWP	WP67	KINGMAN	AZ
GRAND CANYON AIRLINES	GCNA	AWP	WP67	GRAND CANYON	AZ
GRAND CANYON HELICOPTERS	X1MM	AWP	WP67	TUSAYAN	AZ
GREAT AMERICAN AIRWAYS	GRAA	AWP	WP66	RENO	NV
GREAT LAKES AVIATION LTD	GLAA	ACE	CE04	SPENCER	IA
GREEN HILLS AVIATION ,LTD	GHLA	ACE	CE22	KIRKSVILLE	MO
GULF AIR TRANSPORT, INC.	GATA	ASW	SW12	NEW IBERIA	LA

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
GULL AIR	GULA	ANE	NE13	HYANNIS	MA
HAMMONDS AIR SERVICE	HMDA	ASW	SW12	HOUMA	LA
HARBOR AIRLINES	HARA	ANM	NM61	OAK HARBOR	WA
HAROLD'S AIR SERVICE	HASA	AAL	AL61	GALENA	AK
HAWAIIAN AIRLINES	HALA	AWP	WP61	HONOLULU	HI
HENSON AVIATION INC	HNAA	AEA	EA21	HAGERSTOWN	MD
HERMENS AIR INC.	HERA	AAL	AL63	ST. MARY'S	AK
HOLIDAY AIRLINES,INC	HAIA	AEA	EA61	NEWARK	NJ
HORIZON AIRLINES	QXEA	ANM	NM61	SEATTLE	WA
ILIANNA AIR TAXI INC	IARA	AAL			
IMPERIAL AIRLINES, INC	IMPA	AWP	WP69	CARLSBAD	CA
INTERNATIONAL AIR SERVICE	IASA	AWP	WP33	BURLINGAME	CA
INTERNATIONAL TRANSFER CO	PSZA	ASO	SO65	MIAMI	FL
INTERSTATE AIRLINES	ISAA	AGL	GL63	YPSILANTI	MI
JEN-AIR	JEIA	AAL	AL61	ANCHORAGE	AK
JET AMERICA AIRLINES	JAMA	AWP	WP65	LONG BEACH	CA
JET CHARTER	JCSA	ASO	SO65	MIAMI	FL
JET EAST	JEAA	ASW	SW02	DALLAS	TX
JET FLEET CORP	JFCA	ASW	SW02	DALLAS	TX
JETSTREAM AIRLINES INC	VNAA	AEA	EA14	LATROBE	PA
JETWAY INC	JWYA	AGL	GL63	YPSILANTI	MI
KEY AIRLINES INC.	KTIA	ANM	NM67	SALT LAKE CITY	UT
LAB FLYING SERVICE	LABA	AAL	AL62	HAINES	AK
LAS VEGAS AIRLINES	LVAA	AWP	WP66	LAS VEGAS	NV
LINCOLN AIRLINES	LALA	ANE	NE19	WINDSOR LOCKS	CT
MALL AIRWAYS INC	MLSA	AEA	EA01	ALBANY	NY

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
MARCO ISLAND AIRWAYS	MCSA	ASO	SO64	MARCO ISLAND	FL
MARKAIR.INC	AIAA	AAL	AL61	ANCHORAGE	AK
MESA AIR SHUTTLE	MASA	ASW	SW01	FARMINGTON	NM
MESABA AVIATION	MALA	AGL	GL14	GRAND RAPIDS	MN
METRO AIRLINES DBA	MTRA	ASW	SW05	HOUSTON	TX
MICHIGAN AIRWAYS INC	MAIA	AGL	GL08	PELLSTON	MI
MID-PACIFIC ISLAND	MPCA	AWP	WP61	HONOLULU	HI
MIDSTATE AIRLINES	MAAA	AGL	GL61	STEVENS POINT	WI
MIDWAY AIRLINES, INC.	MIDA	AGL	GL31	CHICAGO	IL
MIDWEST AVIATION	SOWA	AGL	GL14	MARSHALL	MN
MISSISSIPPI VALLEY ARL	MVAA	AGL	GL31	MOLINE	IL
MUSE AIR CORP	MACA	ASW	SW33	DALLAS	TX
NATIIONAL COMMUTER AIR	NTCA	ASO	SO65	MIAMI	FL
NATIONAL EXECUTIVE AIRLN	AENA	AWP	WP66	LAS VEGAS	NV
NEW ENGLAND AIRLINES	NEAA	ANE	NE13	WESTERLY	RI
NEW YORK AIR	NYAA	AEA	EA31	FLUSHING	NY
NEW YORK HELICOPTER	IHCA	AEA	EA11	GARDEN CITY	NY
NEWAIR INC	NAFA	ANE	NE19	NEW HAVEN	CT
NICHOLSON AIR SERVICE	CBEA	AEA	EA21	CUMBERLAND	MD
NORTH AMERICAN AIRLINES	MCAA	ASO	SO65	FT. LAUDERDALE	FL
NORTH PACIFIC AIRLINES	NPAA	AAL	AL63	ANCHORAGE	AK
NORTHEASTERN INTL	NIAA	ASO	SO65	FT. LAUDERDALE	FL
NORTHERN AIR CARGO	NACA	AAL	AL63	ANCHORAGE	AK
NORTHERN AIRWAYS,INC	X6GG	AGL	GL64	GRAND FORKS	ND
NORTHWEST AIRLINES	NWAA	AGL	GL34	ST. PAUL	MN
OCEAN REEF AIRWAYS	ORAA	AEA			

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
OCEANAIRE FLIGHT SERVICES	OLIA	ASO	SO61	SAN JUAN	RQ
ORION AIR, INC.	TAGA	ASO	SO66	RALEIGH	NC
OSOLINK/BIRCHWD/INTR VL	X4HH	AAL	AL63	CHUGIAK	AK
OZARK AIRLINES	OZAA	ACE	CE62	ST. LOUIS	MO
PACIFIC AIR EXPRESS	PAXA	AWP	WP61	HONOLULU	HI
PACIFIC ALASKA AIRLINES	PAKA	AAL	AL61	FAIRBANKS	AK
PACIFIC COAST AIRLINES	HPJA	AWP	WP01	GOLETA	CA
PACIFIC EAST AIR	PCEA	AWP	WP62	LOS ANGELES	CA
PACIFIC SOUTHWEST AIR	PSAA	AWP	WP69	SAN DIEGO	CA
PAN AMERICAN	PAAA	ASO	SO65	NEW YORK	NY
PANORAMA AIR TOURS	PAHA	AWP	WP61	HONOLULU	HI
PEGASUS AIRLINES	PGGA	AEA	EA62	WASHINGTON	DC
PENINSULA AIRWAYS INC	PNSA	AAL	AL03	KING SALMON	AK
PENNSYLVANIA AIRLINES	PCAA	AEA	EA10	MIDDLETOWN	PA
PEOPLE EXPRESS AIRLINES	PEXA	AEA	EA61	NEWARK	NJ
PHILLIPS MICH CITY FLY	PPAA	AGL	GL18	MICHIGAN CITY	IN
PIEDMONT	PAIA	ASO	SO66	WINSTON-SALEM	NC
PILGRAM AVIATION	PLGA	ANE	NE19	GROTON	CT
PIONEER AIRWAYS	PIOA	ANM	NM03	DENVER	CO
POCANO AIRLINES INC	PLAA	AEA	EA03	AVOCA	PA
POMPANO AIRWAYS	MGAA	ASO	SO65	FT. LAUDERDALE	FL
PONDEROSA AVIATION INC/DB	PAPA	AWP	WP67	TAYLOR	AZ
PRECISION AIRLINES	PREA	ANE	NE15	MANCHESTER	NH
PRINCEVILLE AIRWAYS	KPVA	AWP	WP61	HONOLULU	HI
PROVIDENCE AIRLINES	PTLA	ANE	NE61	DAVISVILLE	RI
PROVINCETOWN-BOSTON	PBAA	ASO	SO65	NAPLES	FL

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
PUERTO RICO INTL AIRLINES	PQAA	ASO	SO61	SAN JUAN	RQ
RANSOME AIRLINES, INC.	RANA	AEA	EA63	CORNWELLS HGTS	PA
REEVE ALEUTIAN AIRWAYS	RAAA	AAL	AL63	ANCHORAGE	AK
REEVES AVIATION	X1DD	AWP	WP61	HONOLULU	HI
REPUBLIC AIRLINES	REPA	AGL	GL34	MINNEAPOLIS	MN
RESORT AIR	RAIA	ACE	CE62	ST. LOUIS	MO
RESORT AIRLINES	RALA	AEA	EA21	BALTIMORE	MD
RICH INTERNATIONAL	RIAA	ASO	SO65	MIAMI	FL
RIO AIRWAYS	RIOA	ASW	SW10	KILLEEN	TX
ROCKY MOUNTAIN AIRWAYS	RMAA	ANM	NM03	DENVER	CO
ROSENBALM AVIATION	RAXA	AGL	GL63	YPSILANTI	MI
ROSS AVIATION INC	ROSA	ASW	SW01	ALBUQERQUE	NM
ROYAL AIR	RAMA	AWP	WP67	TUCSON	AZ
ROYAL HAWAIIAN AIR SERV	RHAA	AWP	WP61	HONOLULU	HI
ROYALE AIRLINES INC	RAYA	ASW	SW12	SHREVEPORT	LA
RYAN AIR SERVICE,INC	UATA	AAL	AL61	UNALAKLEET	AK
RYAN AVIATION CORP	RYNA	ACE	CE22	WICHITA	KS
SAN JUAN AIRLINES	SANA	ANM	NM61	PORT ANGELES	WA
SCENIC AIRLINES	SCIA	AWP	WP66	LAS VEGAS	NV
SCHEDULED SKYWAYS INC	SKIA	ASW	SW06	FAYETTEVILLE	AR
SEA AIRMOTIVE INC	SAIA	AAL	AL63	ANCHORAGE	AK
SEMO AVIATION INC	SEMA	ACE	CE62	MALDEN	MO
SFO HELICOPTER AIRLINES	SFAA	AWP	WP64	OAKLAND	CA
SHAWANO FLYING SERV	X2EE	AGL	GL61	SHAWANO	WI
SIERRA PACIFIC AIRLINES	SPAA	AWP	WP67	TUCSON	AZ
SIMMONS AIRLINES INC/DBA	SIMA	AGL	GL08	NEGAUNEE	MI

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
SKY TOURS	X1EE	AGL	GL06	PORT CLINTON	OH
SKYWAYS OF OCALA INC	SOIA	ASO	SO64	OCALA	FL
SKYWEST AIRLINES/DBA	SWIA	ANM	NM67	ST. GEORGE	UT
SLOCUM AIR INC	SACA	ASO	SO65	MIAMI	FL
SMB STAGE LINES	SMBA	ASW	SW33	DALLAS	TX
SOUTH CENTRAL AIR, INC.	SOCA	AAL	AL63	KENAI	AK
SOUTH PACIFIC ISLAND AWS	SPIA	AWP	WP61	HONOLULU	HI
SOUTHERN AIR TRANSPORT	SRAA	ASO	SO65	MIAMI	FL
SOUTHERN EXPRESS AIRLINES	SEXA	AWP	WP66	LAS VEGAS	NV
SOUTHERN FLYER INC	SFIA	ASO	SO61	CAROLINA	RQ
SOUTHERN JERSEY AIRWAYS	SJSA	AEA	EA63	ATLANTIC CITY	NJ
SOUTHWEST AIRLINES CO.	SWAA	ASW	SW33	DALLAS	TX
SPIRIT AIRWAYS	X1PP	AWP	WP02	SAN FRANCISCO	CA
STARFLIGHT INTL AIRLINES	SRIA	AEA	EA11	FARMINGDALE	NY
STATE AIRLINES	SSSA	ASO	SO65	FT. LAUDERDALE	FL
SUBURBAN AIRLINES INC.	SALA	AEA	EA03	READING	PA
SUMMIT AIRLINES, INC	SMMA	AEA	EA63	PHILADELPHIA	PA
SUN AIRE LINES	SUNA	AWP	WP08	BORREGO SPRINGS	CA
SUN COUNTRY AIRLINES	SCNA	AGL	GL34	MINNEAPOLIS	MN
SUN WEST AIRLINES	SDCA	AWP	WP67	PHOENIX	AZ
SUNAIRE	X2BB	ASO	SO61	ST CROIX, US	VI
SUNBELT AIRLINES	JMRA	ASW	SW06	CAMDEN	AR
SUNBIRD AIRLINES INC	SBDA	ASO	SO66	DENVER	NC
SUNBIRD INC	SBIA	ASO	SO63	MURRAY	KY
SUNDORPH AERONAUTICAL	SDFA	AGL	GL06	CLEVELAND	OH
SUNWORLD INTL AIRWAYS	SWXA	AWP	WP66	LAS VEGAS	NV

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
T-BIRD AIR	TBAA	ASW	SW05	HOUSTON	TX
TANANA AIR SERVICE	X1HH	AAL	AL61	TANANA	AK
TENNESSEE AIRWAYS	TENA	ASO	SO63	ALCOA	TN
TOWER AIR	TWRA	AEA	EA31	JAMAICA	NY
TRANS AIR INC	TIIA	ASO	SO65	FORT LAUDERDALE	FL
TRANS AIR LINK	TALA	ASO	SO65	MIAMI	FL
TRANS CONTINENTAL	TCAA	AGL	GL63	YPSILANTI	MI
TRANS FLORIDA AIRLINE	TFAA	ASO	SO67	DAYTONA	FL
TRANS MIDWEST AIRLINES	TMAA	AGL	GL07	COLUMBUS	OH
TRANS MO AIRLINES	XVIA	ACE	CE62	JEFFERSON CITY	MO
TRANS SOUTHERN AIRWAYS	APDA	ASO	SO67	FLORENCE	SC
TRANS WORLD AIRLINES INC	TWAA	ACE	CE33	NEW YORK	NY
TRANS-CENTRAL AIRLINES	TRCA	ASW	SW09	OKLAHOMA CITY	OK
TRANS-COLORADO AIRLINES	CACA	ANM	NM03	GUNNISON	CO
TRANSAMERICA AIRLINES	TIAA	AWP	WP64	OAKLAND	CA
TRI-STATE AIRLINES, INC.	TSIA	AEA	EA01	WHITE LAKE	NY
TYEE AIRLINES,INC	TYEA	AAL	AL62	KETCHIKAN	AK
UNITED AIR CARRIERS INC.	UACA	AEA	EA31	JAMAICA	NY
UNITED AIRLINES,INC	UALA	ANM	NM31	CHICAGO	IL
USAIR, INC.	USAA	AEA	EA38	WASHINGTON	DC
VALDEZ AIRLINES	VLDA	AAL	AL63	ANCHORAGE	AK
VALLEY AIRLINES	VFSA	ANE	NE15	FRENCHVILLE	ME
VIEQUES AIR LINK	VLIA	ASO	SO61	VIEQUES	RQ
VIKING INTL AIRLINES	VIAA	AGL	GL34	MINNEAPOLIS	MN
VIRGIN AIR	VAIA	ASO	SO61	ST. THOMAS	VQ
VIRGIN ISLANDS SEAPLANE	VISA	ASO	SO61	ST. CROIX U.S.	VI

AIRLINE NAME	DES	REGION	D.O.	CITY	STATE
WALKER'S AVIATION SERVICE	WCAA	ASO	SO65	FT. LAUDERDALE	FL
WESTAIR COMMUTER AIRLINE	WSTA	AWP	WP12	CHICO	CA
WESTERN AIRLINES	WALA	AWP	WP62	LOS ANGELES	CA
WHEELER FLYING SERVICE	WHAA	ASO	SO66		NC
WIEN AIR ALASKA	WAAA	AAL	AL63	ANCHORAGE	AK
WILL'S AIR	WRWA	ANE	NE13	HYANNIS	MA
WILLIAMS AIR INC	WMAA	AEA	EA63	MEDFORD LAKES	NJ
WINGS AIRWAYS	PAWA	AEA	EA63	BLUE BELL	PA
WINGS OF ALASKA INC	X3HH	AAL	AL62	JUNEAU	AK
WINGS WEST	WWMA	AWP	WP01	SAN LUIS OBISPO	CA
WISE AIRLINES	WAMA	ASW	SW07	SAN ANGELO	TX
WORLD AIRWAYS	WRLA	AWP	WP64	OAKLAND	CA
WRIGHT AIRLINES	WRTA	AGL	GL63	CLEVELAND	OH
YUTE AIR ALASKA INC	YUAA	AAL	AL63	DILLINGHAM	AK
ZANTOP INTL AIRLINES	ZIAA	AGL	GL63	YPSILANTI	MI

327 RECORDS PRINTED

AIR CARRIERS RECEIVING INDEPTH INSPECTIONS

- Air Carriers Conducting Operations Under FAR Part 121 Rules:

Air Florida
Air National Sales and Service
Air Resorts
Alaska Airlines
American International Airways
American Trans Air
Arista International Airlines
Arrow Airlines
Cam Air International
Emerald Air
Evergreen International
Flying Tiger Line
Key Airlines
Markair
Midway Airlines
Northeastern Airlines
People Express Airlines
Rich International Airlines
Rosenbaum Aviation
United Air Carriers (ONA)

- Air Carriers Conducting Operations Under Both FAR Part 121 Rules and FAR Part 135 Commuter Rules:

Air Pac
Combs Freightair
New Aire
Pilgrim Airlines
Rio Airways
South Pacific Island Airways
Wright Airlines

- Air Carriers Conducting Operations Under FAR Part 135 Rules:

Air North
American Central Airlines
Arctic Circle Air
Clinton Aero
Ford Aire
Harolds Air Service
Precision Airlines
Resort Airlines
San Juan Airlines
Scheduled Skyways
Skywest Airlines
Slocum Air
Spirit Airways
Sunbelt Airlines
Wheeler Flying Service
Wills Air

AIR CARRIERS/FACILITIES VISITED BY SPECIAL TEAMS

Aero Coach Airlines
Air Atlanta
Air California
Air Florida
Air Midwest
Air National Sales & Service
Air One
Air South
Air Wisconsin
Airlift International
Allstar Airlines
American West Airlines
American Airlines
American Int'l. Airways
American Trans-Air
Arrow Airways
Aspen Airways
Air Terminal Services
Airport Commuter Services
Aviation Methods
Arizona Jet
Aviall of Texas
Best Airlines
Braniff Airways
Butler Aviation
Capitol Air
Chalks Int'l.
Conner Airlines
Continental Airlines
Delta Airlines
DFW Airport Authority
Eastern Airlines
Emerald Air
Empire Airlines
Evergreen International
Eastern Metro Express
Executive Air Fleet
Emery World Wide
Fin Air
Flying Tiger Line
Frontier Airlines
Flight Safety Int'l.
(6 locations)
Galaxy Airlines
Global Int'l. Airways
Gulf Air Transport
Gull Air
International Air Service
Interstate Airlines
Jet America Airlines
Jet Charter Services
Jet East
Key Airlines
Midway Airlines
Mississippi Valley Air
Muse Air
Morgan Equipment
Mid-Coast Aviation
National Air
New York Air
Northeastern Int'l. Airways
Northwest Orient Airlines
Orion Air
Ozark Airlines
Pacific Southwest Air
Pan American World Airways
People Express Airline
Piedmont Aviation, Inc.
Province-Boston Airline
Page Av Jet
Pentastar Aviation
Republic Airlines
Rocky Mountain Airways
Ryan Aviation
Ratliff Aviation
Ram, Inc.
San Juan Airlines
Scheduled Skyways
Southwest Airlines
Sun Country Airlines
Sun World Int'l. Airways
Silver Wings
Trans World Airlines
Transamerica Airlines
United Airlines
U.S. Air
United Parcel Service
Western Airlines
Wien Air Alaska
Weyerhaeuser

APPENDIX G

INSPECTION SUMMARY DATA: PHASE I AND PHASE II

1. During the initial planning, a review of the FAA's Air Operator Data System indicated that approximately 400 air carriers would be involved in the NATI Program. Further analysis revealed that a relatively large number of Part 135 air carriers had authorization to conduct commuter operations; however, not all were actively engaged in commuter operations at the time the NATI program was conducted. A smaller number of air carriers had ceased operations but were still being identified as active operators by the Air Operator Data System. The names of the air carriers involved in NATI are contained in Appendix F. The final numbers of involved carriers and the breakdown by applicable FAR are provided in the table below.

TABLE G-1

NATI PHASE I AIR CARRIER SUMMARY - NATIONWIDE

APPLICABLE OPERATING RULES	NUMBER OF AIR CARRIERS
PART 121 ONLY	110
BOTH PART 121 AND 135 COMMUTER	38
PART 135 ONLY	179
TOTAL AIR CARRIERS	327

2. A comparison of the rate of inspection work accomplished during Phase I to a sampling of various District Office normal work programs provides an insight into the intensity of Phase I inspection activity.

	PHASE I	NORMAL
Inspection Work Per Week		1,178
Inspection Work Per 3-Week Period	13,467	3,534
Ratio (relative to "normal")	3.8	1

3. During the program, the Headquarters NATI program office formed and directed teams to conduct in-depth inspections on 43 air carriers.

Based on a review of the in-depth inspection work conducted on a nationwide basis during calendar year 1983, the national average rate of in-depth inspections was 3.4 inspections per month. Thus, the comparison of NATI Phase II in-depth inspection work to comparable inspection work under normal circumstances would be:

	PHASE II	NORMAL
In-depth Inspections Per Month		3.4
In-depth Inspections Per 3-Month Period	43.0	10.2
Ratio (relative to "normal")	4.2	1

4. Special Purpose Teams conducted surveys of selected subject areas that were identified as having a potential impact throughout the air transportation system. During the conduct of the surveys, the Special Purpose Teams visited or observed operations of 89 different air carriers and other aviation support organizations.

5. The expenditure of inspector workhours and workdays during the 90-day NATI program was significant. The table below illustrates an assessment of the inspector time spent on the NATI program:

TABLE G-2

SUMMARY OF INSPECTOR TIME REQUIRED - NATIONWIDE

INSPECTIONS AND SURVEYS	INSPECTOR HOURS
Phase I	
Inspection function only	22,825
Travel and report writing	17,001
Total	39,826
Phase II	
In-depth inspections - Total time	18,344
Special purpose surveys - Total time	4,170
Total Inspector Time for NATI Programs	62,340

Note: The times indicated do not include clerical personnel or Headquarters Program Office personnel.

6. The twelve types of inspections employed during Phase I of the NATI program looked at many individual items or systems during the course of the inspection. The following table tabulates the total estimated number of individual items or systems examined. According to this estimate, more than three quarters of a million individual items or systems were inspected during Phase I. Initial tallies of deficiencies reported by the Phase I inspections indicates that less than one-half of 1 percent (Ø.5%) of all the individual items or systems examined were reported to be deficient to some varying degree. In view of the complexity of the systems involved, this represents a high degree of compliance with regulations, standards, and good/safe operating practices.

NATI PHASE I INSPECTION SUMMARY

ALL AIR CARRIERS NATIONWIDE

INDIVIDUAL ITEMS OR SYSTEMS EXAMINED

TYPE OF INSPECTIONS	OPERATIONS INSPECTIONS			AIRWORTHINESS INSPECTIONS		
	AVERAGE ITEMS EXAMINED	NUMBER INSPECTIONS PERFORMED	TOTAL ITEMS EXAMINED	AVERAGE ITEMS EXAMINED	NUMBER INSPECTIONS PERFORMED	TOTAL ITEMS EXAMINED
STA. FACILITY	35	1,375	48,125	25	836	20,900
RAMP	30	2,408	72,240	80	2,854	228,320
ENROUTE	80	2,608	208,604	85	532	45,220
RECORD	75	415	31,125	15	522	7,830
TRAINING	30	369	11,070	25	347	8,675
SPOT				90	878	79,020
MANUAL				15	323	4,845
TOTALS			371,200			394,810

Total Operations Items or Systems Examined.....371,200
Total Airworthiness Items or Systems Examined.....394,810
Grand Total of Items or Systems Examined.....766,010

Table G-3

APPENDIX H

SAMPLE OF PHASE II

IN-DEPTH INSPECTION FINAL REPORT

This Appendix contains an example of a Phase II in-depth inspection final report. The substantiating documentation to the findings is not included with this example due to its possible use in legal enforcement proceedings. The last seven sheets provide an example of an interim follow-up corrective action report.

. AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

PREFACE

This report contains the observations, conclusions and recommendations resulting from the Phase II National Air Transportation Inspection of Airlines which was conducted during the period of April 12, 1984, through April 19, 1984.

On April 12, 1984, the inspection team and personnel of the certificate holding Flight Standards District Office at were briefed by Mr. Headquarters National Air Transportation Inspection coordinator. Following that briefing, Mr. , the inspection team leader, and Mr. Manager of the , Flight Standards District Office, briefed Mr. , the President and the Director of Operations of Airlines.

The briefings described the scope and details of the inspection team's planned activities.

The Inspection Team was composed as follows:

- Team Leader
- Assistant Team Leader
- Member
- Member
- Member

Airlines, Inc. holds air carrier operating certificate number issued under Part 135 of the Federal Aviation Regulations. Their principal business office is at the Municipal Airport in

began operations in 1979 and has rapidly grown to its present status as a scheduled commuter air carrier. erves 19 cities in and and plans to expand to include before May 1, 1984.

operates Embraer EMB-110 and Piper PA-31 aircraft on its scheduled routes and a variety of small single and multiengine airplanes in its charter operations. The company employes approximately 300 people including 43 certificated mechanics and 110 pilots.

Documentation of the observations made in this report is contained in Appendix "A" and is identified by the same titles as the narrative sections. Documentation also appears in the same order as the findings in the narrative sections.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

MANAGEMENT

Observations

Airlines is a privately held company. Its principal owners are , President and , Vice-President. Mr. maintains an office in and Mr. maintains an office in . Mr. , Director of Station Personnel, is based at . Mr. Director of Operations is based at Mr. Chief Pilot is based ad Mr. , Director of Maintenance and Mr. , Chief Inspector are based at

For the most part, management appears capable and qualified. There are two exceptions.

1. Mr. Director of Operations, demonstrated in conversation with , the Team Leader, that may not have adequate knowledge of the training requirements of FAR 135.

2. The Flight Standards District Office is presently investigating the background of the Chief Pilot, to determine his qualifications to continue to hold his position.

Mr. , President of is reluctant to delegate any authority to his management personnel. This has resulted in his managers being immobilized while waiting for his permission to act in their assigned areas of responsibilities. The air carrier manual does not list any authority in the job descriptions of the management personnel.

Conclusions

With the exception of the Director of Operations and the Chief Pilot, the management of Airlines appears competent and qualified.

The reluctance of the president to delegate authority has diminished management's level of awareness and its ability to intervene quickly in situations which influence safety posture.

Recommendations

The team recommends certificate holding Flight Standards District Office:

1. Continue its investigation of the Chief Pilot's qualifications.

2. Determine if the knowledge of the Director of Operations meets the requirements of FAR 135.39(a) with respect to his knowledge of FAR 135.

3. Require amendment of Airlines' Air Carrier Manual to include the authority of each management person as required by FAR 135.23(a).

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

AIRWORTHINESS OVERVIEW

Airlines' principal maintenance base is in . Additional maintainence bases are at and . The and stations employ four mechanics each and operate under an approved Repair Station Certificate. The Repair Stations are certificated for limited ratings which cover the type aircraft being operated.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

MAINTENANCE MANUAL

Obaervations

A review of Airlines manual disclosed the following findings:

1. The organization chart on Page 1 - 10 shows and states that the Chief Inspector is responsible to the Director of Maintenance. No separation between maintenance and inspection responsibility is shown.

2. Chapter 2, Page 2 - 3 states: Maintenance is done in accordance with FAR 135.411(a)(2) for aircraft with 10 seats or more. The manual does not indicate how maintenance is performed for the aircraft with 9 seats or less.

3. Chapter 9 states: The pilot will sign the airworthiness release after he performs an A2 inspection on the Embraer EMB 110 aircraft. Chapter 2, Page 2 - 3 and FAR 135.443 require that the airworthiness release must be signed by a certificated mechanic or repairman. FAA order 8320.12, Paragraph 863(a) requires that if an air carrier has a continuous airworthiness maintenance program or an AAIP in effect, which includes the performance of a preflight inspection or preflight check as an integral part of such program, that work must be performed by qualified A & P mechanics.

4. The company manual does not contain a procedure to use placards to indicate Minimum Equipment List items.

Conclusion

The Airlines' maintenance manual has errors and omissions which can lead to noncompliance with the Federal Aviation Regulations and influence the airworthiness of aircraft.

Recommendations

The team recommends the certificate holding Flight Standards District Office require the amendment of Airlines' manual to:

1. Provide separation of Maintenance and Inspection functions.

2. State how 9 or less passenger aircraft will be maintained.

3. Prohibit pilots from performing an A-2 inspection and signing the airworthiness release for the Embraer aircraft.

4. Establish a procedure for use of each approved minimum equipment list including procedures to make sure each deferred item is repaired in a reasonable amount of time.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

AIRWORTHINESS TRAINING AND TRAINING RECORDS

The maintenance training records were reviewed for 41 maintenance personnel at the primary maintenance base in . All records are maintained by the Chief Inspector and include training records for the Director of Maintenance, Chief Inspector and all currently employed mechanics. The records appeared to be current. Separate sheets are maintained for each person, indicating on-the-job training and familiarization training.

A maintenance and inspection training log contains the subject of training, hours of training, whom training is conducted by, and each individual student's signature.

An individual form is provided to indicate Required Inspection Item (RII) training. The form indicates the name of each person, his title, and the inspections authorized that person is to perform.

The company appears to have an adequate number of mechanics trained. All mechanics hold Airframe and Powerplant certificates.

The records indicate adequate training of personnel to make airworthiness determinations and RII requirements for the Embraer aircraft. However, the training records reviewed did not indicate any training for the Piper aircraft being operated by the company.

Maintenance records indicte , Mechanic Certificate performs a considerable amount of Avionics work. Records indicate his is performing bench checks on avionics equipment, radios and instruments.

Mr. holds a Federal Communications Certificate License No. . The training records do not indicate he has had any avionics training. The training records indicate Mr. received 4 hours of on-the-job training on a Pilot Static Tester, a Transponder Tester, and Nav/Com Tester. That training was conducted by the Airlines' Chief Inspector, Mr.

Mr. 's the senior inspector at He is a certificated mechanic. His training records showed he has RII authorization on the Embraer aircraft for A-1 inspections. Mr. was not familiar with this authorization when questioned about it.

Mr. , Chief Inspector, conducts the majority of the training done by this company. He is signing all authorizations for avionics work when he himself has not received adequate training in avionics.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

AIRWORTHINESS TRAINING AND TRAINING RECORDS (Cont).

Conclusions

1. Individual training records show that adequate Embraer aircraft training and PT6 engine training is provided for maintenance personnel.

2. No record exists of anyone receiving any training on the Piper PA31 aircraft.

3. No avionics training was shown for) or .

4. RII training appears adequate except in the case of avionics and instruments.

Recommendations

The team recommends the s Flight Standards District Office schedule additional surveillance to assure that Airlines:

1. Conducts adequate training for its maintenance personnel who work on its Piper aircraft.

2. Conducts or arranges adequate training for its avionics and instrument repair personnel.

3. Issue authorization cards to each qualified person stating his authority to run, taxi, perform required inspections, etc.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

AIRCRAFT AND COMPONENT MAINTENANCE RECORDS

Observations

Airworthiness Directive Compliance

The records of Airworthiness Directives (ADS) on the Embraer aircraft, N N N N , N N , and Piper PA31-350, N , were reviewed for the previous six months. Compliance was found on all applicable Airworthiness Directives. The operator is complying with the Airworthiness Directives anywhere from 10 hours to 100 hours prior to the required compliance time. The Airworthiness Directives are shown on a computer readout sheet, along with other maintenance items to be accomplished on the scheduled inspections. The compliance is being recorded in a separate log and the records person puts the next compliance date in the computer data.

Time Life Items

The maintenance records for the same aircraft were reviewed for compliance with the time life items shown in Embraer Maintenance Planning Guide, T.P. 110P2/145. The computer readout sheet shows times due for overhaul replacement, or retirement. Maintenance is scheduled accordingly by the Chief Inspector. Compliance was found to be satisfactory on all records reviewed. The computer readout had a mistake for one aircraft, N . A generator control unit that called for a bench check was improperly identified (serial number). The Chief Inspector said a search of past work orders would be necessary to determine hours on the unit. Since it was a 4,000 hour unit, the Chief Inspector felt it did not present a problem. It was noted the Operations Specifications approved for the Embraer do not include any reference to the time life items shown in Note 3 of the A21SO aircraft type certificate data sheet even though the time life items are picked up in the ATA items in Section D of the Operations Specifications.

Deferred Maintenance Items

The flight logs on the previously listed aircraft were reviewed thoroughly for any carryover items, times on items carried over, and length of time it was taking to be cleared. With exception of a few non-airworthiness items, all carryover items were scheduled on the worksheets for repair or replacement as appropriate. The majority of items were avionics discrepancies.

Required Inspection Team Procedures (RII)

All work other than inspection, is recorded on a company form titled "Non-routine Maintenance". All the Embraer aircraft and two of the PA31-350 aircraft were checked back for the past month for RII compliance. Proper sign off was noted. The only discrepancy noted was the Mr. - is performing avionics and instrument repairs he is not properly qualified to do. This was brought to the attention of the -- Flight Standards District Office and . Airlines.

AIRCRAFT AND COMPONENT MAINTENANCE RECORDS (Cont)

As as a result, a fleet wide campaign was immediately conducted to determine what aircraft had those particular avionics units or instruments installed. All such units were promptly removed and taken to a certified repair station for appropriate checks and approval for return to service.

Computerized Maintenance Record Program

A computer readout for the Embraer aircraft provided to the Chief Inspector, was reviewed for content. The computer terminal at the facility was inoperative due to some telephone changeover problems, so as computer information is needed it is sent to the maintenance facility through the computer terminal used bytheir airline ticket personnel. The readout had been reviewed previously by the Chief Inspector and maintenance items shown had been entered on the non-routine worksheets for all the aircraft at the maintenance facility that night. Information shown on readout sheet is backed up with same data in a cardex file which was spot checked. Their computerized program appears tastisfactory in all respects.

Conclusion

The aircraft and component maintenance records are accurately kept and provide timely control of required maintenance and inspection.

Mr. has maintained and inspected avionics and instruments without appropriate training.

Recommendations

The team recommended the certificate holding district office take enforcement action in the matter of the avionics and instrument repair and inspection by Mr.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

AIRCRAFT WEIGHT AND BALANCE CONTROL

Observations

All weight and balance reports (actual aircraft weight reports) were checked at the facility and those empty weights were compared with those recorded on the individual flight sheets for each aircraft. All were found to be acurate. No noncompliance on periodic weighting was noted.

Conclusions

No deficiencies were found.

Recommendations

None.

- AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

EMBRAER EMB 110 AIRCRAFT MAINTENANCE PROGRAM

Observations

The continuous Airworthiness Maintenance Program was reviewed with emphasis on what was being done with known problems the Embraer aircraft has experienced. For instance, cable wear has been a problem on this aircraft.

Airlines has replaced their original control cables with a different approved cable and, according to the Director of Maintenance, they have up to 1500 hours on the new cables. The trend and analysis reports were reviewed and confirmed the statement of the Director of Maintenance. The Pratt & Whitney monitoring program Airlines is using is being updated by pilot reports. Several flight sheets were reviewed and it was noted the pilots are complying with this procedure. Maintenance Manuals reviewed for the Embarer aircraft were complete.

The maintenance program is doing an excellent job according to the trend and analysis program reports which were reviewed.

Conclusions

The Embraer EMB 110 maintenance program is adequate and effective.

Recommendations

None.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

MAINTENANCE FACILITIES

Observations

performs maintenance at and

Inspection of the facility disclosed the following:

Spare parts and special equipment appear adequate for the functions of the facility.

Stock room personnel appear adequate and properly trained.

Parts checked were properly tagged, protected, separated and labled.

The company uses a color tag system, i.e. Red-Green-Yellow. Red tagged (condemed) items were separated from other parts.

The stock room was clean and orderly. Calibration of test equipment checked was current (calibration of test equipment monitored by computer and personally by the Chief Inspector).

Inspection of the maintenance facility disclosed the following:

irlines maintenance facility at is housed in one hangar. Maintenance is accomplished on Piper PA31 and Embraer EMB 110 aircraft. Maintenance consisting only of A-1 inspections on the Embraer and repairing the pilot write up discrepancies on both models of aircraft. The facility is certificated as a repair station with a Limited Airframe Rating on the Embraer and Piper PA31 aircraft.

The station has adequate spare parts, common hardware and equipment for Embraer and Piper aircraft. Parts are stored, clean, properly marked, protected and tagged.

Manufacturer's manuals were reviewed for revision compliance. The Embraer manuals were found current. There is no revision service for the Piper PA31 maintenance manuals.

Inspection of the maintenance facility disclosed the following.

The facility is run as repair station with Limited Airframe, Powerplant, Accessory and Specialized Services. The limited ratings cover the Embraer and Piper aircraft, Lycoming and PT6 engines and Accessory (Batteries) and Specialized Services (Static, Sys. Act. Transponder).

MAINTENANCE FACILITIES (Cont)

The station employs a total of four mechanics all are A/P certificated mechanics.

Training records are maintained and indicate training for Embraer, Piper aircraft, PT6 engine, RII requirements and on-the-job training. The training records appear current and adequate.

Station maintenance manuals, service manuals, and manufacturer's documents were inspected. The manuals were inspected for current revision and correct data.

The following discrepancies were noted regarding technical data:

The Repair Station Operations Specifications lists Pratt & Whitney Manual #301544. The station was using Pratt & Whitney manual #3021242.

Mr. is listed as a Shop Foreman Inspector.

The Repair Station Operations Specifications lists accessory - batteries.

Mr. stated that no battery manuals were available, and the station now sends this work to the Maintenance Base.

According to Mr. , this station is performing PA31-350 50 and 100 hour inspections.

The station did not have Piper PA31-350 inspection forms.

PA31-350 Inspection Report 230764 requires inspection of magnetos for oil leakage and a pressure test in accordance with Lycoming Service Instruction No. 1308. Mr. stated they do not do this due to not having the appropriate equipment of the station. He also stated he was not aware of that inspection requirement.

The certificate holding Flight Standards District Office and _ Airlines were informed of the Piper PA31 maintenance situation and began an immediate record review to determine the airworthiness of the PA31 aircraft.

Conclusions

1. _ Airlines has adequate maintenance facilities.

2. Some of 's maintenance personnel located at are unaware of the company's policies and procedures.

3. The facility at does not have all the manuals required for the maintenance it is authorized to perform.

MAINTENANCE FACILITIES (Cont)

4. Airlines Piper PA31 Aircraft may not be adequately maintained.

Recommendations

1. The team recommends that the certificate holding Flight Standards District Office increase surveillance of the , maintenance facility to assure its staff is adequate and knowledgeable of current company procedures and that all required manuals are present and current.

2. The team recommends the certificate holding Flight Standards District Office continue its ongoing action to ascertain the airworthiness of Airlines Piper PA31 aircraft.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

SPOT, ENROUTE, AND RAMP INSPECTIONS

Observations

During a spot inspection of Embraer EMB-110, N , at , on 4/15/84, it was discovered that the aircraft had been operating with an expired temporary registration certificate.

During enroute inspections, the following deficiencies were noted:

1. Operating Embraer EMB 110, N , on 4/13/84, when the registration number painted on the aircraft was not the same as that shown on the airworthiness or registration certificate.

2. Operating Piper PA31-350, N through a maintenance base with open discrepancy items which affected airworthiness. This occurred on 4/17/84.

3. Operating N on 4/13/84 when hand carry on baggage weight was not accounted for.

4. Operating N on 4/13/84 when the total fuel on board shown on the fuel gauges differed from total shown on weight and balance manifest.

5. On 4/17/84 the pilots of N demonstrated no knowledge of where the aircraft flight manual was kept or what information is contained in that manual.

6. Operating N on 4/17/84 utilizing an aircraft empty weight which differed from the aircraft empty weight contained on the weight and balance report in the flight manual.

The following deficiency was noted on a ramp inspection of N on 4/13/84:

The passenger briefing cards do not contain information for use of the floatation gear the operator carries on board during overwater flight.

Conclusions

1. 'irlines' procedures to control the operational weight and balance of its aircraft is deficient.

2. 'irlines' procedures to assure that mechanical irregularities or defects have been corrected or deferred before each flight are deficient.

3. The passenger briefing cards do not include all required information.

AIRLINES
NATIONAL AIR TRANSPORTATION INSPECTION

SPOT, ENROUTE, AND RAMP INSPECTIONS (Cont)

Recommendations:

The team recommended in its debriefing of the certificate holding district office that:

1. Airlines be immediately required to have and use an FAA approved weight and balance program for controlling the loads aboard its Embraer and Piper PA31 aircraft.

2. Airlines' procedures for recording, reporting correcting and deferring mechanical irregularities or defects including procedures for use of Minimum Equipment Lists, be immediately amended to assure that clear, detailed instructions are provided for all appropriate personnel.

The team further recommends that the certificate holding Flight Standards District Office require Airlines to provide passenger briefing cards containing all necessary information.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Operations

Overview

Airlines' principal business office and operations base is in

Airlines conducts ground training in , flight training in and maintains records in both places. Aircraft records are kept in .

Airlines' flight operations were inspected by means of enroute inspections, record inspections, training program surveillance, and manual reviews.

. AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Flight Operations

Records Inspections

Observations

Airlines has its principal business office in .

Pilot records in were inspected and the following deficiencies were noted.

1) The individual pilot records do not record the pilot's aeronautical experience in sufficient detail to determine the pilot's qualifications to pilot aircraft under FAR 135. The records do not show compliance with the recency of experience requirements of FAR 135.247(a)(1) and (2) and the second-in-command qualifications of FAR 135.245(a). In addition, there is no method to record the landings substituted for the hours of operating experience required by FAR 135.244(a).

2) The FAA Forms 8410-3 contained in some individual pilot records are not accurately completed. In some cases the flight check reports show flight times of such short duration that it is improbable that all the required maneuvers and procedures could have been accomplished.

3) Load manifests on file were reviewed and in a number of instances errors in arithmetic caused the manifests to be inaccurate.

4) Two manifest showed errors which resulted in operations at weights in excess of the operating limitations of the aircraft.

a. The load manifest for flight 752 shows an EMB-110, N , from to e, was piloted by Captain and First Officer . The load manifest for the above aircrat shows a maximum gross takeoff weight limitation of 13,007 pounds and an actual takeoff weight of 12,981 pounds. However, a check for accuracy disclosed that the actual takeoff weight was 13,131 pounds, or 124 pounds over gross.

b. Load manifest for flight 780 from . to disclosed that EMB-110, N , has a maximum gross takeoff weight of 12,500 pounds and an actual takeoff of 12,448 pounds. A check for accuracy disclosed that the actual takeoff weight was 12,713 pounds or 213 pounds over gross.

5) Time and duty records disclosed that pilots are not exceeding time and duty limitations at the present time. The certificate holding Flight Standards District Office is conducting an independent investigation of alleged violation of time and duty limitations which may have occurred several months ago.

. AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Flight Operations

Records Inspections (contd)

6) Due to the separate location of various records, the pilot training records kept in , were not cross checked with the flight time logs kept in .

Conclusion

. Airlines' recordkeeping system does not meet the requirements of Federal Aviation Regulation 135.63.

Recommendations

The team recommends the certificate holding Flight Standards District Office take the following action.

1) Immediately require . Airlines to adopt and use an approved weight and balance program to control loading of their Embraer EMB-110 and Piper PA-31 aircraft.

2) Require . Airlines to keep full and accurate pilot records.

3) Continue its investigation of flight and duty time limitations and, by cross checking aircraft logs and training records, investigate the accuracy of the training records.

4) Increase surveillance of . Airlines' check airman during the performance of their duties.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Air Carrier Manual

Observations

1) The manual does not contain a list of each person authorized to exercise operational control as required by FAR 135.77.

2) Number II-2, Page 1 of the Operations Manual shows that the chief inspector reports to the Director of Maintenance. There does not appear to be the separation of function required by FAR 135.423(c).

3) The authority oif each management person is not specified in the job descriptions for the Director of Operations (number II-6, Page 1 of Manual), Chief Pilot (number II-7, Page 1 of Manual), Director of Maintenance (number II-10, Pages 1 and 2 of Manual), and Chief Inspector (number II-11, Pages 1 and 2 of Manual), as required by FAR 135.23(a).

4) Number III-10, Page 7, and number III-11, Pages 1 and 2, contain fire protection and refueling information which does not constitute acceptable procedures for refueling and protection from fire. The information does not provide any detailed instructions concerning refueling or fire protection and does not meet the requirements of FAR 135.21(a) and 135.23(j).

5) Number III-10, Page 9, contains information under the heading "Ground Deicing". The information is contradictory to the recommendations in Advisory Circular 65-15A, Chapter 7, Page 299.

6) Number III-21, Page 1, states in paragraph 2:

> "It is the policy of this Company to enforce the unwritten Law of Aviation: Any pilot refusing a flight for other than weather, mechanical, legality, or documented physical incapacitation will automatically be terminated without notice or commendation."

This in unacceptable, and contrary to FAR 91.3(a).

7) Number IV-6, Page 1, has a procedure for briefing of handicapped passengers and their attendants which does not contain sufficient information to provide for an efficient emergency evacuation.

8) Number IV-6, Page 3, Item 6, states life vests are located at "the rear of the cabin." If so, over water operations are contrary to FAR 91.33(b)(11) which requires that they be "readily available to each occupant."

9) Number IV-9, Pages 1, 2, and 3, include weight and balance, and loading instructions that do not provide procedures to account for the effect that carry on baggage has on the center of gravity of the loaded aircraft. The instructions allow use at a standard weight of 6.5 pounds per gallon of JET A fuel. No detailed instructions for filling out the load manifest exist. This section of the manual does not assure compliance with weight and balance limitations.

10) Number IV-10, Page 1, addresses "restrictions on gross takeoff weight." It appears this section of the manual is meant to provide compliance with airplane performance limitations. This section does not assure compliance with the weight limitations specified in section 2 of appendices 1 and 29 of the Embraer EMB-110 flight manual.

11) The last sentence in the third paragraph of Number IV-10, Page 11, states "Use the charts provided in the aircraft flight manual or Manufacturers Airplane Operating Manual for wet runway operation." The team has discovered that there are no such charts.

12) Number IV-10, Page 19. The first paragraph speaks to IFR minimum altitudes and appears to be contrary to FAR 91.119(a)(2).

13) Number IV-10, Page 25, contains a paragraph entitled "use of aviation weather reports" which states

"When using aviation weather reports to determine the suitability of the proposed or intended operation, it should be remembered the remarks usually contain RVR or RVV section of the aviation sequence reports which is controlling for landing and takeoff limitations. These limitations must come for a current report issued by the tower of such approved facility."

This makes no sense and is unacceptable as manual material.

14) Number IV-11, Page 11, paragraph 2, allows takeoff and landing in up to nine inches of snow! This is contrary to every safe practice known and FAR 91.9. This page of the manual is unacceptable.

15) Number IV-11, Pages 12, 13, and 14, are located in the appendix to this report and must be read to be believed. This material is nonsense and does not belong in an air carrier manual.

16) The procedures in . Airlines' manual for use of minimum equipment lists are inadequate. This is contrary to FAR 135.23(i).

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Air Carrier Manual (contd)

Conclusions

. Airlines' air carrier manual contains unacceptable material and, does not contain certain material required by the Federal Aviation Regulations.

Recommendations

The team recommends that the certificate holding Flight Standards District Office require amendment of . Airlines' manual to provide compliance with FAR 135.21, FAR 135.23, and FAR 135.77. The team further recommends that the certificate holding Flight Standards District Office accept only that manual material which provides procedures compatible with the highest standards of safety.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Pilot Training Program

Observations

The following areas of the pilot training program were found deficient.
1) Number V-2, Page 1, under "Recurrent Training" the program states in part:

"Recurrent training may be considered complete if the pilot passes written examinations on equipment and basic indoctrination."

This appears contrary to FAR 135.351(b)(2).

2) Number V-2,Page 1, under "Previous FAR 135 Experience" the program states:

"Newly hired crewmembers who are current under FAR 135 in the same equipment he will be flying, will be placed in the recurrent training program and will be given additional ground training sufficient to demonstrate knowledge of Company policies, procedures, and operations."

This appears contrary to FAR 135.329(a)(1) and Order 8430.1C, para. 99(a).

3) Number V-3, Page 1, under recurrent training states in part:

"If the pilot is required to pilot more than one type of aircraft, he must take the instrument proficiency checks in each type of aircraft in rotation but not to exceed more than one instrument check within a six month period. If the Pilot-In-Command is assigned to pilot both single engine and multi-engine aircraft, that pilot must initially take the instrument proficiency check in a multi engine aircraft and each succeeding check alternately in single engine."

This appears contrary to FAR 135.297(f) which states:

"If the pilot in command is assigned to pilot both single engine and multiengine aircraft, that pilot must initially take the instrument proficiency check required by paragraph (a) of this section in a multiengine aircraft and each succeeding check alternately in single engine and multiengine aircraft, but not more that one flight check during each period described in paragraph (a) of this section. Portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the Administrator."

4) Number V-3, Page 2, under recurrent training states the requirements for pilots taking instrument checks using an autopilot. One requirement in the manual states:

"Conducts instrument approaches completely."

The word "completely" should be "competently" to provide compliance with FAR 135.297(g).

Pilot Training Program (contd)

5) Number V-3, Page 2, under "Operating Experience" states in part:

"In the case of an aircraft not previously used by the certificate holder, aircraft hours accumulated during previous flights or ferry flights may be used."

This is contrary to FAR 135.244(b)(2) which reads as follows:

"The experience must be acquired in flight during commuter passenger carrying operations under this part. However, in the case of an aircraft not prviously use by the certificate holder in operations under this part, operating experience acquired in the aircraft during proving flights or ferry flights may be used to meet this requirement."

6) Number V-4, Page 1 and 2, under "Basic Indoctrination" does not include:

a) Principles and methods for determining runway limitations for takeoff and landing;

b) Air Traffic Control phraseology; and

c) Meteorology to include knowledge of the principles of fog and wind shear.

This appears contrary to FAR 135.327(a).

7) Number V-4, Page 3, paragraph 8, lists out of date Advisory Circulars as study material. This appears contrary to FAR 135.341(a) and FAR 135.341(c).

8) Number V-4, Page 3, paragraph 9, reads as follows:

"HANDING (sic) AND CARRIAGE OF HAZARDOUS MATERIALS

Minimum time - 1 hour

Airlines pilots who accept hazardous materials will become familiar with and receive ground training on Section II-9 of the Operations Manual."

Section II-9 of the operations manual is entitled "Second in Command - Duties and Responsibilities" and has nothing to do with hazardous materials.

9) Number V-4, page 4, paragraph 10, "Emergency and Emergency Evacuation Duties" does not include:

a) Individual instruction in the location, function, and operation of emergency equipment including-

(1) Equipment used in ditching and evacuation;

(2) First aid equipment and its proper use; and

(3) Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires.

b) Instructions in the handling of illness, injury, or other abnormal situations involving passengers or crewmembers.

c) Performance of emergency drills in fire extinguishing and smoke control.

This is contrary to FAR 135.327(a).

10) The team could not find any reference in the training curriculums to instruction in:

a) Visual cues before and during descent below DH or MDA; and

b) For each aircraft type-

(1) A general description;

(2) Performance characteristics;

(3) Engines and propellers;

(4) Major components;

(5) Major aircraft systems (i.e., flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;

(6) Procedures for avoiding severe weather situations and for operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence and low altitude windshear), icing, hail, and other potentially hazardous meteorological conditions;

Pilot Training Program (cond)

(7) Operating limitations;

(8) Fuel consumption and cruise control;

(9) Flight planning; and

(10) Each normal and emergency procedure.

This is contrary to FAR 135.327(a).

11) The team could not find a written training program curriculum for each aircraft type. This is contrary to FAR 135.327(a).

12) The flight training curriculum contained in Number V-5, Pages 1, 2, and 3, does not contain training in the instrument approach procedures authorized by Airlines' Operations Specifications.

13) Number V-5, Page 2, makes the following statements:

"Minimum Times

ASEL: Initial 2 hours; Recurrent - 1 hour
Transition, upgrade, difference - same as Recurrent minimum
AMEL: Initial 3 hours; Recurrent - 2 hours
Transition, upgrade, difference - same as Recurrent minimum
Successful completion of the instrument proficiency check. FAR 135.297, may be substituted for minimum times."

This is contrary to FAR 135.327(a) by reason of FAR 135.347(a) and FAR 135.329(b).

14) Number V-11, Page 1, 2, and 3. The curriculum for check airmen and flight instructors does not include:

a) The applicable provisions of the Federal Aviation Regulations and the certificate holders' policies and procedures; and

b) The potential results of improper or untimely safety measures during training.

This is contrary to FAR 135.327(a).

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Pilot Training Program (contd)

Conclusion

Airlines' pilot training program does not meet the requirements of Subpart H of FAR 135.

Recommendations

The team recommends that the certificate holding Flight Standards District Office require . Airlines to develop a training program that meets the regulatory requirements. It is very important that each portion of the training program be subjec o direct surveillance by the FAA prior to its final approval.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Flight Operations Enroute Inspections

Observations

1) Pilots are filling out weight and balance (load manifest) paperwork during critical phases of flight.

2) Aircraft are loaded in a manner other than that reported on the load manifest. This includes not accounting for the location of carry on baggage in computing c.g. location and use of a fuel weight on the load manifest that differs from that shown on fuel guages.

3) Mathematical errors on load manifests are causing flight operations at weights in excess of those listed as operating limitations for the aircraft.

4) Carry on baggage is not properly secured during flight and is allowed to obstruct aisles and exits.

5) Operations are conducted with inoperative equipment which is not authorized by the approved Minimum Equipment List.

6) Operations are conducted with required aircraft placards missing or obliterated.

7) Poor cabin public address system quality has resulted in inadequate oral briefings.

8) While riding as a passenger on April 13, 1984, Inspector observed that Captain executed a LOC/DME BC approach to runway 13 at , , while carrying passengers under FAR 135 in actual IFR conditions. When the aircraft came out of the clouds it was aligned approximately 30 degrees from the runway center line at 400 feet AGL and one half mile from touchdown. The aircraft's CDI needle was fully deflected at least once during the approach.

Captain was counseled by Inspector at the end of the flight. The Chief Pilot, Mr. , and the Flight Standard District Office were notified.

9) The refueling procedures observed during enroute inspections disclosed that contract refueling personnel are unfamiliar with proper fueling procedures including:

a) Refueling vehical safety;

b) Location of firefighting equipment;

c) Grounding and bonding; and

d) Protection against fuel contamination.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Flight Operations Enroute Inspections (contd)

Conclusions

Airlines' weight and balance/load control procedures are deficient.

Airlines does not have procedures to use its approved Minimum Equipment Lists.

The oral briefings given over the Embarer public address systems are inadequate.

Airlines' fueling procedures are inadequate.

Recommendations

During the debriefing the team recommended that the certificate holding Flight Standards District Office immediately:

1) Take whatever action necessary to assure Captain competency as an air carrier pilot.

2) Require Airlines to adopt a safe, useful, and approved weight and balance/load control program for its Embraer EMB-110 and Piper PA-31 airplanes.

3) Require Airlines to develop and use a standard fuel handling procedure that includes training for contract personnel.

The team further recommends the certificate holding Flight Standards District Office:

1) Require Airlines to establish procedures for use of its MELs.

2) Determine that Airlines repairs its aircraft public address systems and orally briefs its passengers in compliance with FAR 135.117.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Minimum Equipment Lists (MELs)

Observations

1) Airlines' air carrier manual has no procedures for use of Minimum Equipment Lists.

2) The Piper PA-23 MEL has no preamble and is not in conformity with the PA-23 Master Minimum Equipment List (MMEL).

3) In all Airlines' MELs ATA Sections 23 (Communications) and 34 (Navigation) do not list specific equipment.

Conclusions

Airlines' MELs are inappropriately approved.

Recommendations

The team recommends the certificate holding Flight Standards District Office require amendment of Airlines' MELs and require Airlines to establish procedures for the use of the MELs.

AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

Operations Specifications

Observations

1) Airlines' Operations Specifications, Page 2 of 6, contain a statement that appears to make its air carrier manual regulatory.

2) Airlines' Operations Specifications, Page 3 of 6, speaks to lower than standard takeoff minimums in a manner that is not in accordance with FAA Order 8430.1C, paragraph 51.

Conclusion

Airlines' Operations Specifications are not appropriately constructed.

Recommendations

The team recommends that the certificate holding Flight Standards District Office amend Airlines' Operations Specifications by deleting the wording concerning the manual on page 2 of 6 and amending the material on page 3 of 6 so as to conform to the requirements of Order 8430.1C.

. AIRLINES

NATIONAL AIR TRANSPORTATION INSPECTION

SUMMARY

The National Air Transportation Inspection of . Airlines was conducted with the full cooperation of the air carrier and the enthusiastic, most helpful cooperation of the Flight Standards District Office.

The inspection team found six deficiencies which had immediate impact on operational safety. Those deficiencies were brought to the attention of . Airlines and the FSDO as they were discovered and were emphasized in the debriefing. Those deficiencies were:

1) The competency of . ' Airlines' Captain is in doubt.

2) . Airlines' load control procedures do not assure compliance with maximum weight and center of gravity limitations. The load control system does not assure the proper stowage of carry on baggage. The weight and balance paperwork is so cumbersome that, in addition to being designed so that errors are probable, it requires the attention of the flight crew to the extent that the crews distracted from their essential duties.

3) . Airlines has in use aboard its aircraft various instruments and avionics items which have been repaired, inspected, and returned to service by unqualified personnel.

4) Airlines may have conducted incomplete 50 and 100 hour inspections on its Piper PA-31 aircraft at its . , maintenance facility.

5) Airlines is operating aircraft with mechanical irregularities and defects which have not been corrected or which have been incorrectly deferred.

6) Airlines' aircraft fueling procedures are unsafe.

In addition, the team found a substantial number of deficiencies for which corrective action can be deferred for a reasonable period of time without compromising safety.

Assuming that immediate action to correct the six major deficiencies is satisfactory, we recommend Airlines be allowed to continue its operations while correcting the other deficiencies told of in this report.

We recommend that the . Flight Standard District Office continue its ongoing investigations concerning flight and duty times, flight training, and the qualifications of Airlines' chief pilot.

U.S. Department of Transportation
Federal Aviation Administration

Memorandum

FSDO

Subject: ACTION: NATI Phase II Inspection Report (Airways,

Date: June 14, 1984

From:

Reply to Attn. of:

Manager
Thru:
Supervisor, Operations Management Unit
To: Manager, Flight Standards Division, -200

Enclosed are the operations findings and corrective action initiated and completed by relative to the subject report.

Enclosure

Completion: July 10, 1984

AW-3
Finding: Airways, has not fully prepared an acceptable maintenance manual as part of the carrier's manual.

Corrective Action is in the process of rewriting their General Maintenance Manual.

Date Action Initiated: June 1, 1984

Date of Anticipated Completion: This is going to be a continuing item with the date of anticipated completion unknown.

AW-4
Finding: Airways, , does not have system control established for their technical publications.

Corrective Action: The entire publication section of their General Maintenance Manual has been rewritten to cover this NATI finding.

Date Action Initiated: June 1, 1984

Date of Anticipated Completion: August 1, 1984

AW-5
Finding: general maintenance manual does not contain a list of persons with whom it has arranged for the performance of maintenance, preventative maintenance, or alterations, including a general description of that work as required by FAR 121.369(a).

Corrective Action: The entire publication section of their General Maintenance Manual has been rewritten to cover this NATI finding.

Date Action Initiated: June 1, 1984

Date of Anticipated Completion: October 1, 1984

AW-7
Finding: continuing analysis and surveillance procedure is inadequate to meet the requirement of an analysis system.

Corrective
Action: is developing a continuing analysis and surveillance system , also a condition monitoring system.

Date
Action
Initiated: June 1, 1984

Date of
Anticipated
Completion: October 1, 1984

AW-8
Finding: Maintenance supplement sheet procedure is not being adhered to by R/S.

Corrective
Action: has supplied a General Maintenance Manual tc . epair Station. They have also added to their manual a company policy for contract maintenance agencies.

Date
Action
Intiated: June 1, 1984

Date of
Anticipated
Completion: July 15, 1984

AW-9
Finding: . Airways, Inc.) prime contract agency for B727 B service and heavier checks is not executing airworthiness releases for . aircraft under their repair station authority.

Corrective
Action: General Maintenance Manual has been written to cover releasing of aircraft at the repair station.

Date
Action
Initiated: June 1, 1984

Date of
Actual
Completion: June 16, 1984

AW-10
Finding: has approved an aircraft for return to service without ensuring that inspection findings were appropriately corrected and documented in accordance with their manual.

Corrective
Action: A description of action for particular aircraft. They have re-written their General Maintenance Manual and added procedures for scheduling reworked items and the use of supplemental sheet.

Date Action
Initiated: June 1, 1984

Date of
Actual
Completion: June 14, 1984.

AW-11
Finding: Major service check work packages are unsatisfactory relevant to the overall accountability of non-routine work items.

Corrective
Action: has developed a tally sheet for accountability of non-routine items. This is being added to their manual.

Date
Action
Initiated: June 1, 1984

Date of
Actual
Completion: July 15, 1984

AW-12
Finding: Airways,) has performed work on left engine inlet cowl that is contrary to structural repair/alterations criteria and to Part 43.13(A) and (B) of the Federal Aviation Regulations.

Corrective
Action: has submitted data concerning the repair to the nose cowl and they plan to repair nose cowl.

Date
Action
Initiated: June 1, 1984

Date of
Anticipated
Completion: July 12, 1984

Ops-4

Finding: Airways procedure for weight and balance does not assure full compliance with FAR 121.693 in each case.

Corrective Action: has instituted a procedure whereby the weight aircraft will not leave the blocks until the weight and balance has been completed. This procedure was reiterated by company bulletin. Weight and balance last minute corrections will be made prior to taxiing. Procedures for completing weight and balance are located in the appropriate company manuals and revisions have been made deleting references to supplemental air carriers. The dispatcher role in weight and balance has been more clearly defined.

Date Action Initiated: May 18, 1984

Date of Anticipated Completion: May 30, 1984

Date of Actual Completion: June 1, 1984

Status: Closed

Ops-4

Finding: Airways procedure for weight and balance does not assure full compliance with FAR 121.693 in each case.

Corrective Action: has instituted a procedure whereby the weight aircraft will not leave the blocks until the weight and balance has been completed. This procedure was reiterated by company bulletin. Weight and balance last minute corrections will be made prior to taxiing. Procedures for completing weight and balance are located in the appropriate company manuals and revisions have been made deleting references to supplemental air carriers. The dispatcher role in weight and balance has been more clearly defined.

Date Action Initiated: May 18, 1984

Date of Anticipated Completion: May 30, 1984

Date of Actual Completion: June 1, 1984

Status: Closed

Ops-5

Finding: Station facilities for Airways that were checked have problems with ramp areas, carry-on luggage, lack of training for agents, lack of knowledge of emergency procedures by agents, emergency telephone listing, no company radio communications equipment, etc., depending on the facility inspected.

Corrective Action: All station manuals have been updated. A computer at each station lists required manuals and latest revision. Procedures for determining runway conditions have been emphasized. A field and facility report is transmitted 3 times daily. Public protection has been increased at stations, as evidenced by roped walkways at orange cones at and positioning company personnel to guide passengers to proper gateways at New

Additional lighting has been requested where needed. All stations have received retraining where necessary and training records have been updated, as necessary, to reflect required training, including a former FAA Inspector to conduct continuous facility inspections throughout their system. Fuelers at all stations have been retrained as necessary. Emergency telephone lists are now posted at every station. Radio communications are available at every station, as outlined in Ops-1, Corrective Action.

Date Action Initiated: May 18, 1984

Date of Anticipated Completion: June 1, 1984

Date of Actual Completion: June 1, 1984

Status: Closed

OPS-6

Finding: _____ Airways flight control system is unable to function as a dispatch center in every case.

Corrective Action: ARINC capability exists on all company aircraft. Proper dispatch procedures have been rewritten in the General Operations Manual; weight and balance responsibility is included in this manual. A flight dispatcher training manual has also been written. Communications appear to be rapid and reliable as outlined in Ops-1, Corrective Action. Dispatchers are properly licensed and trained and are knowledgeable as to their joint responsibilities, with the pilot in command. _____ appears to have adequate weather NOTAM and field reports at their dispatch center and the means to transmit these to the pilot in command.

Date Action Initiated: May 18, 1984

Date of Anticipated Completion: May 25, 1984

Date of Actual Completion: June 1, 1984

Status: Closed

APPENDIX I

SAMPLE OF INFORMATION PROVIDED TO EACH PHASE II IN-DEPTH INSPECTION TEAM

This Appendix contains an example of the information provided to each Phase II in-depth inspection team. The information includes: 1) Briefing agenda; 2) Policy letter; 3) Operator Data Report; 4) Operator Data Report Supplement; and 5) Regional NATI Coordinator Summary. The teams were also provided copies of all Phase I inspection reports accomplished on the subject air carrier, however, copies of these reports are not included in this example due to their possible use in legal enforcement proceedings.

BRIEFING OF _____

May 2, 1984

at

WASHINGTON HEADQUARTERS

ATTENDEES: Team Leader - Alfred Fleener, Jose Santos

1. Introduction of personnel, location and present position.

2. Distributed Notice 8000.246, AFO-200/AWS-300 letter, and Phase I inspection reports.

3. Overview NATI Program - Phase II Emphasis.

4. Review Appendix 5, Notice 8000.246.

5. Briefing of and background, aircraft, and scope of operations by the respective principals in the SEA District Office.

6. Questions from attendees directed to the respective principals.

7. Depth, areas, and method of conducting inspection in operations area.

8. Depth, areas, and method of conduoting inspection in maintenance area.

9. and District Offices will arrange for motel and transportation. Per diem will be provided for by each inspector's own region.

10. The team will meet with the MEL/Deferred Item special purpose team to coordinate their efforts and plan on meeting with Airline management at the same time. The special purpose team will obtain the information they need and depart. The indepth team will complete the assigned inspection, prepare the report, and then depart to initiate inspection of

U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: INFORMATION: Safety Responsibilities of Air Carriers and FAA Inspectors

Date: MAR 06 1984

From: William T. Brennan
Manager, Air Transportation Division, AFO-200

Reply to Attn of: Euler:AFO-200

Joseph A. Pontecorvo
Manager, Aircraft Maintenance Division, AWS-300

To: All Regional Flight Standards Division Managers

For the past several years the Federal Aviation Administration (FAA), the air transportation industry, and the traveling public have been experiencing the effects of economic deregulation in the air carrier industry. The number of new entrant air carriers has increased more than twofold. Some certificate holders have merged; some have terminated operations or have filed for protection under the bankruptcy laws. Labor/management issues are becoming more acute. Some long established certificate holders are operating within financial strictures, attempting to enter new markets and striving to maintain existing markets. There may be situations where both prospective and existing certificate holder management personnel are occupied to a greater degree than in the past with their endeavors to deal with intensified competitive forces.

Title VI, "Safety Regulations of Civil Aeronautics," of the Federal Aviation Act (the Act) of 1958 specifies that minimum standards, rules, and regulations shall be prescribed as necessary to provide adequately for national security and safety in air commerce. Section 601(b) of the Act specifies, in part, that in prescribing standards and regulations and in issuing certificates, full consideration shall be given "to the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest...." Simply put, we believe the Act charges DOT/FAA with the responsibility of promulgating and enforcing adequate standards and regulations, but at the same time, it recognizes that the holders of air carrier operating certificates have the direct responsibility of providing air transportation with the highest possible degree of safety. There should be no misunderstanding about the meaning of the Act; it recognizes that this duty and responsibility rest directly with the air carrier, irrespective of any action taken or not taken by an individual FAA inspector or the FAA.

Recent events indicate that it may be appropriate to review the requirements of the air transportation industry in regard to the certification and operation of air carriers. The purpose of this letter is to refocus attention on the air carriers' safety responsibilities as specified by the Act and to reemphasize the FAA inspector's responsibility for assuring compliance with applicable safety standards and regulations.

The objective of the air carrier certification process as prescribed by current regulations and policy directives is actually a continuing objective. Prior to certification, the objective is to make factual and legal determinations that the prospective certificate holder is willing and able to fulfill its duties as set forth by the Act as well as comply with the minimum standards and regulations prescribed by the DOT/FAA. After certification the same objective continues to exist. If, at any time, a certificate holder fails to perform its services with the highest degree of safety or fails to comply with the minimum standards and regulations, Section 609 of the Act specifies that the certificate may be amended, modified, suspended or revoked, in whole or in part. Additionally, Section 605(b) of the Act generally provides that whenever an inspector, in the performance of his/her duty, finds that any aircraft, aircraft engine, propeller, or appliance, used or intended to be used by any air carrier in air transportation, is not in condition for safe operation, he/she shall so notify the carrier, and the product shall not be used in air transportation unless the DOT/FAA finds it to be in condition for safe operation.

Discussed below are conditions and/or situations that may be indicative that an air carrier is unable and/or unwilling to carry out its duties as set forth by the Act.

1. Repetitive noncompliance with the minimum standards and regulations is highly indicative that the air carrier is incapable or unwilling to perform services with the highest possible degree of safety. Air carriers must demonstrate the ability to comply with the minimum standards and regulations in a continuing fashion without constant FAA surveillance. A circumstance that indicates a need for constant or 100 percent surveillance to ensure compliance would appear, by itself, to provide sufficient reasons and evidence to invoke the provisions of Section 609 of the Act to suspend or revoke the certificate or to amend the operating authority specified in operations specifications.

2. Inadequate knowledge of the minimum standards, regulations, or safe operating practices displayed by air carrier management personnel may be indicative of a lack of concern for the duty the Act places upon the air carrier. A lack of knowledge and/or understanding of the minimum standards and safe practices displayed by air carrier employees are evidence that the air carrier is not providing sufficient training and guidance as required by current regulations and, consequently, not fulfilling its duties as set forth by the Act.

3. Current regulations specify that the certificate holder is responsible for operational control and the airworthiness of its aircraft. Control and discipline of air carrier employees and agents used by the air carrier are essential factors in the fulfillment of these responsibilities. The inability or the lack of motivation to exercise such operational and/or quality airworthiness control is clearly indicative that the air carrier cannot or will not carry out its duty to perform services with the highest possible degree of safety.

4. Accurate recordkeeping is a key factor in assuring positive operational and quality airworthiness control and is the only currently recognized method of demonstrating that such control has, in fact, been exercised. Accurate recordkeeping is also the only known method for the air carrier to show that it complies with the minimum standards and regulations in a continuing fashion. For the most part, compliance can only be substantiated by records. Compliance should never be presumed. Inaccurate and/or incomplete records that do not reflect proof should not be condoned. Knowing and willful falsification or alteration of records is deemed to be a misdemeanor by Section 902(e) of the Act and, in our opinion, should be promptly prosecuted in accordance with the appropriate provisions of the applicable statutes and regulations.

We believe that our society accepts the concept that those holding out their services shall be held to a higher standard of care. The Act and current regulatory policies recognize the obligation of the air carrier to maintain the highest degree of safety, and consequently, only minimum standards and regulations have been promulgated. These policies recognize the societal concepts of private rights and public responsibilities; however, public safety and national security must be the FAA's highest purposes.

Therefore, we must maintain an action attitude with respect to any air carrier that does not or cannot fulfill its public responsibilities or properly discharge its duty to perform its services with the highest possible degree of safety.

Regional Flight Standards Divisions, district offices, and individual FAA inspectors are expected to take and will be supported in any reasonable efforts or actions taken to assure that air carriers continue to fulfill their responsibility as discussed in this memo. Distribution of this memo to district office Flight Standards personnel is requested.

NATI DONE

RIS FS 8000-1

U.S. Department of Transportation
Federal Aviation Administration

OPERATOR DATA REPORT

PERIOD ENDING: March 9, 1984

INSTRUCTIONS - Use reverse side for general remarks. Include major changes planned or programmed which are of significant interest to FAA

(Check one) ☐ INITIAL ☒ SPECIAL ☐ ANNUAL

1. OFFICIAL NAME OF OPERATOR (Include d/b/a if appropriate)
AIRLINES, INC.

2. TYPE OF CERTIFICATE HELD
A ☒ AIR CARRIER B ☐ OPERATING

3. MAINTENANCE DESIGNATOR SYMBOL

4. CERTIFICATE
A NUMBER
B DATE ISSUED 11/15/79

5. REGION, CERTIFICATE HOLDING DISTRICT OFFICE, LOCATION AND NUMBER (List both offices on split certificate)
NW Mountain Region 101 NE

6. PRINCIPAL FAA INSPECTORS ASSIGNED TO OPERATOR
A OPERATIONS: RAYMOND J. DAUGHERTY
B MAINTENANCE: JOHN O. GRIFFE
C AVIONICS: FRANK V. DAY

7. OPERATIONAL STATUS
X A ACTIVE ☐ B CERTIFICATE SURRENDERED OR REVOKED DATE
(IF OTHER THAN ACTIVE, EXPLAIN ON REVERSE SIDE)

8. PRINCIPAL OPERATOR OFFICIALS

A PRESIDENT AND/OR OWNER		B VICE PRESIDENT
C OPERATIONS OFFICIAL	NAME	TITLE: SENIOR VICE PRESIDENT OF OPERATIONS
D MAINTENANCE OFFICIAL	NAME	TITLE: DIRECTOR OF MAINTENANCE AND ENGINEERING
SYSTEM CHIEF PILOT	NAME	

9. OPERATOR'S MAILING ADDRESS(ES) AND TELEPHONE NUMBER(S)

EXECUTIVE	OPERATIONS	MAINTENANCE
	SAME	SAME

10. TYPE OF OPERATIONS SPECIFICATIONS HELD (check all applicable types)

	A DOMESTIC AND FLAG AIR CARRIER		F OPERATORS USING LRG ACFT/SMALL T—CAT ACFT PART 135
X	B SUPPLEMENTAL/SCHEDULED CARGO AIR CARRIER		G COMMUTER AIR CARRIER
	C COMMERCIAL OPERATOR - SCHEDULED INTRASTATE		H 418 - ALL CARGO
	D FOREIGN FLAG AIR CARRIER (PART 129)		I PART 125
	E AIR TAXIS USING LARGE AIRCRAFT (OLD 135.2)		J

11. AIRCRAFT BEING OPERATED

TYPE AND MODEL	NO	TYPE AND MODEL	NO	TYPE AND MODEL	NO	TYPE AND MODEL	NO
L-188	2	B-727 B727	13				
DC-8	6	FALCON FALC2	4				
DC-9	3						

RECEIVED MAR 9 1984 ANM-200

12. REPORTING OFFICE

A DATE	B TITLE	C SIGNATURE
03/09/84	PRINCIPAL OPERATIONS INSPECTOR	RAYMOND J. DAUGHERTY

13. REGIONAL REVIEW

A DATE FORWARDED TO WASHINGTON	B TITLE	C SIGNATURE

FAA FORM 8000-8 (8-82)

FIGURE 2-2. REGIONAL NATI COORDINATOR SUMMARY

1. Air Carrier ____ Airlines (____ Certificate No: ____

2. Executive Summary

   a. ODR attached, 1st page X / X
   b. ODR Supplemental Form attached, 2nd and 3rd pages ___ / X

3. Number of operations reports 37

4. Number of airworthiness reports 38

5. Total number of Phase I reports 75

6. Hours spent on operations inspections 84.5

7. Hours spent on airworthiness inspections 75.1

8. Total hours spent on Phase I inspections 159.6

9. A brief narrative of the method used to evaluate Phase I inspection reports. (IAW Appendix 2, paragraph 5.b.)

NATI Phase I reports were evaluated by a team review consisting of NATI coordinator, asst. coordinator, branch specialists, branch managers, with input from respective POI, PMI, PAI, and field office managers. Field and division reviews of reports were conducted independently and then compared and reconciled for preparation of the final assessment. All pertinent data was considered including NATI reports, accident and incident records, and current surveillance and enforcement activities. Conclusions were reached based on a final division team review. Primary factors in the analysis included number of inspections conducted, frequency of problems occurring, seriousness or consequences of discrepancies noted, current remedial activities underway, and confidence level in the sample taken being representative of the carriers' safety and compliance status.

10. Conclusions reached: Based on discrepancies noted in the limited sample of NATI Phase I, together with significant expansion of this carrier, sprawling operations, and previous enforcement history, a more comprehensive review of this carrier is warranted.

11. Recommendations: A multi-office Phase II operations and airworthiness team should conduct a broadly based review including main base, training facility, as well as outlying facility, spot, and ramp inspections.

12. Copies of all reports appended ✓

Thomas Imrich
Name and Signature of Regional NATI

3/30/84
Date

Northwest Mountain
Region

* This form when completed will constitute the 4th page of the summary.

* If space is limited use reverse of this page.

N 8000.
Appendix 2

FIGURE 2-1. OPERATOR DATA REPORT SUPPLEMENT

1. NAME OF OPERATOR. _____ Certificate Numbe. _____

a. Commenced operations as a:

☐ Domestic/Flag _____ ☐ Prior to 1978 or Mo.__ Yr.__

☒ Supplemental/Scheduled Air Cargo __ ☒ Prior to 1978 or Mo.11 Yr.75

☐ Commuter Air Carrier _____ ☐ Prior to 1978 or Mo.__ Yr.__

☐ Nine or less passenger seats

☐ Ten or more passenger seats

☐ Other (explain below) _____ ☐ Prior to 1978 or Mo.__ Yr.__

2. CREWMEMBER/MECHANIC/DISPATCHER INFORMATION.

a. Total number of:

(1)	Pilots	126	(6)	Certificated Dispatchers	5
(2)	Flight Engineers	47	(7)	Mechanics	59
(3)	Flight Attendants	0	(8)	Maintenance Inspectors	2
(4)	Check Airman	17	(9)	Avionics Technicians	2
(5)	Line Check Airman	14	(10)	Certificated A&P Mechanics	59

3. PRIMARY CREWMEMBER AND MECHANIC DOMICILE LOCATIONS (CITY/STATE).

a. Pilots and Flight Engineers. SEE ATTACH.

b. Flight Attendants. 0

c. Mechanic and Other Maintenance Personnel. Louisville, Kentucky
McMinnville, Oregon
Ontario, California
Newark, New Jersey

N 8000.
Appendix 2

FIGURE 2-1

TRAINING INFORMATION.

a. Crewmember and Dispatcher Training Bases.

Training base location (city/state)	Type of training
SEE ATTACH.	

b. Crewmember Contract Training.

Name of Contractor	Location (city/state)	Type of Training

c. Maintenance training.

Training base locations (city/state)	Type of Training
United Airlines (San Francisco, CA)	DC-8
Braniff Airlines (Dallas, TX)	B-727
Air Canada (Montreal, Canada)	DC-9
Cat II (Morristown, N.J.)	Falcon 20
Federal Express (Memphis, TN)	Falcon 20

5. CONTRACTUAL ARRANGEMENTS FOR MAINTENANCE/OVERHAUL. Attach copies of operations specifications or manual pages regarding contractual maintenance arrangements.

ATTACHED

6. RELIABILITY PROGRAMS. Attach copies of operations specifications or manual pages regarding reliability programs.

ATTACHED

RAYMOND J. DAUGHERTY
Name and Signature of Preparer

FSDO
District Office

APPENDIX I

SAMPLE OF INFORMATION PROVIDED TO EACH PHASE II IN-DEPTH INSPECTION TEAM

This Appendix contains an example of the information provided to each Phase II in-depth inspection team. The information includes: 1) Briefing agenda; 2) Policy letter; 3) Operator Data Report; 4) Operator Data Report Supplement; and 5) Regional NATI Coordinator Summary. The teams were also provided copies of all Phase I inspection reports accomplished on the subject air carrier, however, copies of these reports are not included in this example due to their possible use in legal enforcement proceedings.

AD-A186 255 NATIONAL AIR TRANSPORTATION INSPECTION PROGRAM FEDERAL AVIATION ADMINISTRATION MARCH 4 - JUNE 5 1984(U) FEDERAL AVIATION ADMINISTRATION WASHINGTON DC 1984 3/3

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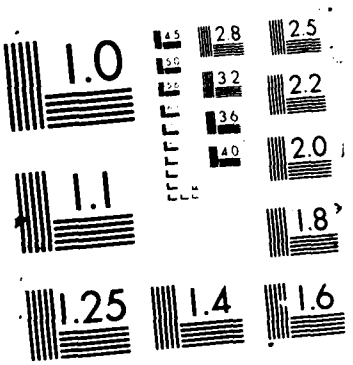
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BRIEFING OF _____

May 2, 1984

at

WASHINGTON HEADQUARTERS

ATTENDEES: Team Leader - Alfred Fleener, Jose Santos

1. Introduction of personnel, location and present position.

2. Distributed Notice 8000.246, AFO-200/AWS-300 letter, and Phase I inspection reports.

3. Overview NATI Program - Phase II Emphasis.

4. Review Appendix 5, Notice 8000.246.

5. Briefing of and background, aircraft, and scope of operations by the respective principals in the SEA District Office.

6. Questions from attendees directed to the respective principals.

7. Depth, areas, and method of conducting inspection in operations area.

8. Depth, areas, and method of conduoting inspection in maintenance area.

9. and District Offices will arrange for motel and transportation. Per diem will be provided for by each inspector's own region.

10. The team will meet with the MEL/Deferred Item special purpose team to coordinate their efforts and plan on meeting with Airline management at the same time. The special purpose team will obtain the information they need and depart. The indepth team will complete the assigned inspection, prepare the report, and then depart to initiate inspection of

END

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